Clinical Lecture

ON A

CASE OF SUPPURATIVE HEPATITIS,

SECONDARY TO THROMBOSIS OF THE PORTAL VEIN.

Delivered at St. Bartholomew's Hospital, November, 1878,

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T. C. L——, a well-built, muscular man, aged twenty-seven, was admitted on Oct. 29th, with jaundice, which he told us had attracted his own and his friends' attention only during the last twenty-four hours. It was true he had been ill longer, having been laid up at home and in bed for exactly a fortnight, but his jaundice he was certain was quite recent.

The account he gave us of the commencement of his illness was in all particulars confirmed by his friends and relations, and appeared entirely trustworthy. He said that he was seized with sudden sharp pain in the epigastrium on the morning of Oct. 15th, that the pain was severe enough to make him vomit, and that he was able to keep nothing on his stomach, either that day or the following; in fact, from that date to his admission he had been very ill, feverish, and thirsty, wholly disinclined for food, and having two or more loose actions of his bowels every day. We were fortunate enough to see one of his motions, which was loose, powdery, and plentifully bile-coloured, his jaundice notwithstanding; and his urine also, which was darkly stained with biliary pigments, sp. gr. 1014, and free from albumen. He further told us that he did not think he had been well for eighteen months past, and that his appetite had been very indifferent for the last four months; but he gave us no particulars, no other facts whatever to explain his ailments, or render their nature clearer. A curious thing enough about even intelligent patients is this reticence upon matters which should, we fancy, have attracted their attention, but are withheld from their doctor's knowledge. His former landlady told my house-physician, Mr. Heath, after the poor fellow's death, that for some months past, upon returning from his work—he was a clerk in some city business,—he would complain of pain in the lower part of his belly, and go straight to bed, and that she had made him numberless hot poultices to put on, which had always relieved him. But not a whisper of this very important matter came to me during his life.

Condition on admission.—Skin warm and moist; temperature 100°; general icteric tint, but not intense; pulse full, soft, and regular, 106; respiration 28; tongue dirty, but not dry at all; heart-sounds normal; apex beat in normal situation. Lungs: resonance at right apex a little impaired as compared with the left. Movements of chest good; no abnormal sounds; no cough or expectoration. Abdomen naturally, not abnormally full; extreme tenderness in epigastrium, and round on right side in liver region; liver edge not to be felt; no fulness of gall-bladder; hepatic dulness a little increased, certainly not less than it should be; splenic dulness a little increased also.

Some of you will remember the prognosis I gave after my examination of him—that I thought very ill of the man,—and the grounds I gave for the unfavourable view I took of his case. 1st. The fact of jaundice existing with bilious diarrhœa. 2nd. The febrile disturbance attending on it: his temperature rose to 102·6° on the night of his admission. 3rd. The tenderness in the epigastrium; the sharp pain and vomiting which had ushered in the commencement of his acute symptoms. 4th. The slight uniform enlargement of liver and spleen, following an illness of fourteen days' duration, which did not correspond with the ordinary symptoms of enteric fever—presenting, as he did, no spots, no full abdomen, no gurgling, no wandering at night, no dryness of tongue. I told you it might be pyæmia, abscess of liver, suppuration following impacted biliary calculi in some of the intra-hepatic gall-ducts, or perhaps abscess in some deep-seated gland, or acute tuberculosis. One thing I ventured at once to advance pretty firmly—my opinion that the patient would die. A few days later his symptoms were too significant of some internal suppuration for me to hesitate to head his board "Suppurative hepatitis."

The course and progress of the patient may be briefly summarised. His nights were bad, sleepless and restless. The pain in the right hypochondrium and epigastrium was not urgent, but a constant aching. He had frequent rigors, regular shivering fits, lasting for a quarter of an hour at a time; then he would burst out into profuse perspirations, especially noticeable when he was asleep. His temperature fluctuated a good deal—fell sometimes to 99·8°; rose one evening to 103·8°; was usually steady at 100·4°. He took nourishment pretty well, but his tongue became more dry and browner; his bowels continued regularly open, but not so relaxed, the motions being always bile-stained. On the 5th November he complained for five minutes of very sharp pain below the right scapula, but there were no physical signs of any localised tumour in the region of the liver. This pain in the scapular region is often, as you know, associated with hepatic suppuration, and suggestive of it.

The treatment pursued was wholly directed to combat the symptoms and support the patient. He had all the nourishment that he could take, with four ounces of both wine and brandy, and a draught containing ten grains of quinine, to be taken in the evening. This, however, had no apparent influence whatever upon his regularly recurring shivering attacks at night.

	Temp.	Resp.	Pulse.
Oct. 29th	100°	28	106
,, 30th	102·6°	—	—
Nov. 1st	100·4°	28	104
,, 2nd	99·8°	—	—
	100·8°	28	104
,, 3rd	100·2°	30	120
,, 4th	100·4°	30	106
,, 5th	102·5°	28	130
,, 6th	100°	—	118

On Nov. 7th troublesome hiccough began, and the abdomen became distended with flatus, his pulse became daily more frequent and feebler, with a peculiar empty jerk about it.

Each day the urine, although deep-coloured from bile and passed in average quantity of from thirty-five to forty ounces, presented a diminishing amount of solid constituents, as signified by steadily decreasing specific gravity, a circumstance of no inconsiderable clinical importance in destructive liver disease. Leucin crystals, too, were discovered in it.

During the last three days he lived the fæces became more solid and clay-like, and his perspirations were less profuse, but his hiccough never left him. He appeared to suffer no pain, and remained quite sensible up to his death, from exhaustion, on Nov. 11th.

The post-mortem, made thirty hours after death, discovered a circumscribed collection of pus, about the size of a pullet's egg, around the appendix vermiformis; the appendix was curled upon itself and attached to the wall of the abscess; no opening was apparent in it. From this abscess a thrombosed vein led up along the mesentery for about two inches, and then opened into another small pus-collection, which again communicated directly with the trunk of the portal vein. The latter was filled with ill-conditioned-looking pus up to its second divisions in the liver-substance, and section of the gland showed numerous abscesses scattered through the ramifications of the portal vein, the largest collection occupying the right lobe. The spleen was large and soft; the kidneys somewhat swelled in their glandular substance; heart and pericardium normal; slight recent pleurisy over each pleura; both lungs a little œdematous at bases.

Here, then, was the evidence of a pyæmia nearly limited or confined to the liver, and it ought to have been doubly instructive to you, gentlemen, from the circumstance of its having been contrasted side by side with the autopsy of a child who had died of empyema and pyæmic lung abscess, that had also started from a perityphilitis provoked evidently by perforation of the vermiform appendix by a tin-tack which was found *in situ* there.

The case tells its own tale. During the patient's life I pointed out to you all the symptoms upon which I relied in making my diagnosis of suppurative hepatitis, but I was not able upon the clinical evidence I elicited to get any clue to its etiology. The most common cause of liver-suppuration

is dysentery; of this he had never had a symptom. Gall-stones were at first suggested by his sudden seizure with pain in the epigastrium; but, as I told you, the pain had not been severe or spasmodic enough to authorise us in assuming a gall-stone impacted in the ductus communis. The pain induced by biliary calculi engaged in the common duct is of an excruciating nature, attended by writhing agony, vomiting, and syncope; during the torture abundant limpid urine is often passed, and four or five hours later the jaundice manifests itself, and bile-stained mahogany-coloured urine is passed. The distended gall-bladder can sometimes be felt. L—— did not suffer pain enough in the first instance to indicate this; he did not become jaundiced until the fourteenth day of his illness. This late occurrence of jaundice militated against the hypothesis of biliary calculi blocking up certain bile-ducts within the liver itself—a circumstance which would have explained jaundice with bile-stained fæces and the possible occurrence of hepatitis.

Acute liver atrophy was contra-indicated by the absence of delirium, and the remarkable clearness of his intellect to the last. On the other hand, the steady diminution of urea in his urine and the presence of leucin were suggestive of very extensive liver disorganisation, or circulatory stasis in this viscus; some physiologists teaching that the liver is one of the principal sources of urea.

In most cases of liver abscess that I have seen, while the evidence of suppuration was, as in L——'s case, not obscurely indicated by rigors, left scapular pain, high temperature, wasting, and hiccough, there has usually been some boss or tumour or suggestive local tenderness in the hepatic region to facilitate the diagnosis. In his instance there was none such, and during life the size of the liver could only be made out to be a little larger than normal; this was enough to assist us against assuming acute atrophy, but lent only equivocal support to our diagnosis of suppurative hepatitis.

The dissemination of the pus-collection through the branches of the portal vein found after death shows how pus may extend widely through the substance of the liver without making any prominent protrusion of it anywhere. It also explains the noticeable feature of a jaundice with free passage of bile into the intestines, and that in this wise. The bile is projected forwards through the bile-ducts by two main forces—one the secretory force, the nutritional liver-cell and blood interchanges; the other the blood-pressure, which cannot be inconsiderable, through the portal vessels, although these are veins only. If the portal vessels are partially thrombosed or blocked, this *à tergo* pressure is much diminished, and the secreted bile tarries in the radicle bile-ducts, abiding far longer than it should in contact with a capillary circulation, maintained, although languidly, by the help of the hepatic artery.

You will have been taught of jaundice from obstructed outflow to the bile, and also of hæmatogenic jaundice—a form which has never commended itself to my matter-of-fact mind, and hope this case may make you remember another always possible source of the icteric tint—the too long tarrying of bile in the bile-ducts, when these are not insurmountably obstructed *à fronte*, for it is not easily intelligible that such disseminated abscess as we found could have exercised very great pressure upon the bile-ducts, an event which happens when the blood-pressure *à tergo*, that should press the bile normally forward, is from a cause like this—thrombosis of the portal vein—itself reduced to *nil*.

BEQUESTS ETC. TO MEDICAL CHARITIES.—Mrs. Bennett, of Dudley, sister of the late Mr. Guest, who left £20,000 to found the Guest Hospital in that town, bequeathed £5000 to it, and £2000 to the Dispensary. The Royal Sea-Bathing Infirmary, Margate, has become entitled to £5000 under the will of Mr. Edward Boards, of Edmonton. The Cardiff Infirmary has become entitled to £1000 under the will of Mrs. Morgan, widow of the Rev. Leigh Morgan, for the purpose of erecting a wing either to the present building or to the proposed new one, to be called "The Leigh Morgan Ward." "A Lady" has given £1000 to the Norfolk and Norwich Hospital. Mrs. Curr, widow of Mr. William Curr, of Dundee, bequeathed £500 to the Dundee Royal Infirmary. The Corporation of the City of London have granted £105 per annum for five years to the maintenance fund of the London Hospital. Miss F. Goldsmid has given £105, and Mr. F. D. Moratta £100, to the Hospital for Consumption, Mount Vernon, Hampstead.

ABSTRACT OF

Lectures

ON THE

DIAGNOSIS OF EPILEPSY.

Delivered before the Harveian Society,

BY J. HUGHLINGS JACKSON, M.D., F.R.S., &c.,

PHYSICIAN TO THE LONDON HOSPITAL AND TO THE NATIONAL HOSPITAL FOR THE EPILEPTIC AND PARALYSED.

LECTURE II.

So far we have spoken of the type case and of the exceptional or sub-typical cases as if these were paroxysmal affections of consciousness only, or crude sensations. Indeed, we may hear of nothing else, but often, if not always, there are physical accompaniments. Necessarily there is always a physical condition—viz., a discharge of some part of the nervous centres, if there be loss of consciousness only. I speak of visible or inferable peripheral effects of the central discharge.

We roughly divide the peripheral effects into three groups: 1. Affection of the animal parts. 2. Affection of the organic parts. Then under each we consider (*a*) what we see—viz., spasms or their effects; (*b*) what we infer from the patient's statement about his feelings before he loses consciousness.

1. *Affection of parts serving in animal functions.* (*a*) Visible movements. These are chiefly stiff or gliding movements of the hands, of the eyes, or of the face, or perhaps of all these parts; that is to say, spasms of parts having small muscles, or, in other words, of parts concerned in the most intellectual operations and most voluntary actions. (*b*) Feelings. The patient may have precursory stench in the nose, balls of fire before the eyes, noises in the ears, numbness of the hands, vertigo; these we interpret to be owing to central discharge of parts of the highest centre of the cerebral hemisphere, representing the regions of the body concerned in the several senses named.

2. *Affection of parts serving in organic functions.* (*a*) Visible changes from spasm, or effects equivalent to spasm. The face and the lips may turn pale, or become red and then pale. There may be a flow of saliva; the pulse may stop. (*b*) Feeling of suffocation, feeling of dying, "sinking into the ground," nausea, the epigastric sensation, chilliness, warmth.

3. Then, in a third group, we must consider Affections of Respiration. Frequently there is in slight attacks suspension of respiration. Respiration stands betwixt the animal and the organic, or is common to both; we not only breathe to aerate the blood—organic function,—but we fix the chest, possibly by closing the glottis, after a full inspiration, to lift a weight, or for short periods in running—animal function.

The study of the initial symptoms of epilepsy proper is, I think, likely to become of importance in regard to rational therapeutics of varieties of epilepsy proper. We know that certain drugs act in particular ways on particular systems of tissues; moreover, there is to a great extent antagonism betwixt some of them—for example, betwixt atropine and muscarin. Now, both belladonna and the muscus agaricus have long been used in epilepsy; it is, I think, important to consider whether there is not some special variety of epilepsy proper in which atropin is useful, and some other in which its antagonist muscarin (or pilocarpin) is useful. There are, I think, two chief varieties of epilepsies proper—one in which the warning is by vertigo, and one in which it is by the epigastric sensation. A vast amount of work will have to be done in the minute investigation of the paroxysm before we can get to know the particular ways and sequences in which the organic parts are affected in different varieties of epilepsy proper. The above list is nothing more than a list. To facilitate the study we should, I submit, study the "natural" groupings of organic parts as they are affected in the two great emotions, Fear and Anger. Is not the affection of organic parts in the former to a considerable extent imitated by atropin and the latter by muscarin?

Epileptic paroxysms often begin by fear, and significantly when there is an epigastric warning. It is a legitimate hypothesis that these paroxysms begin by discharge of the parts representing especially the parts concerned in the manifestation of fear. Again, post-epileptic actions, be they what they may, appear to be as if done in a state of terror. To some extent these remarks, *mutatis mutandis*, apply to anger.

Let us just pause to note some facts of scientific bearing essential to clearness even in an empirical inquiry. If a fit *begins* with affection of consciousness, it is an irresistible inference that the corresponding physical process begins in some of the highest centres of the cerebrum, the chief part of the organ of mind, the discharge being of unstable cells in those centres. For highest consciousness is nothing other than a name for our present highest or latest mental states. Must not our highest, our latest nervous centre be engaged during our highest, latest mental states? The physical process in a fit beginning by loss of consciousness is a discharge beginning in some of the nervous arrangements in the highest centres of the brain. In this lecture we deal with cases in which there is little more than loss of consciousness, in which the peripheral effects are slight. Now, it is a singular thing at first glance, that it is in these very cases that we have not only symptoms referable to animal parts, but also symptoms referable to organic parts, as pallor of face, flow of saliva, limitation and stoppage of pulse. With either set of symptoms there may be stoppage of respiration with little spasm of limbs. Moreover, the effects are widely distributed, in severe fits universally distributed. Do not these facts show that the organic, as well as the animal, parts of the body are represented in the cerebrum and in the very highest of the cerebral centres?

These facts, as to implication of organic parts in epilepsy, find their parallel in the occurrence, in meningitis and in other acute primary brain diseases, of vomiting, constipation, retracted belly, irregularity of pulse. It is exceedingly important to note that from disease of "the organ of mind" we have such peripheral physical symptoms; the more so that whilst *they* are of great value in the diagnosis of acute primary disease of the brain, positive mental symptoms (delirium, &c.) are of little value, none, I think, in diagnosis of such acute primary disease.

If it were admitted that the "organ of mind" was, like lower centres, representative of nothing else than impressions and movements, it would save us from many blunders. Surely there is nothing strange, *à priori*, in supposing that the higher and highest cerebral centres have the same fundamental *kind* of constitution as the lower centres in the pons, medulla oblongata, and spinal cord. From not admitting this, acute brain disease in its earliest stage is nearly always put down to fault in some non-cerebral organ, whose activity is particularly disturbed, directly or indirectly, by disease in that part of the brain which represents that organ. Is not migraine continually put down to digestive derangement? Is not ear disease overlooked in auditory vertigo, and the blame put on the innocent liver? Are not cases of tubercular meningitis and cerebral tumours in their earliest stages constantly ascribed to stomach and liver derangements? Now, to come back to our subject: because a patient's pulse is irregular during or just after an epileptic fit, the fit, supposing it to be slight, is put down to cardiac failure, even when the patient is suddenly seized when sitting reading or at dinner, turns deadly pale, and yet does not fall. Again, because a patient's fits begin with an epigastric sensation, described as nausea, or if there be belching of wind, it is not at all uncommon for the attacks to be ascribed to indigestion, notwithstanding that these stomach symptoms occur paroxysmally, and that ordinarily the patient may eat a big dinner and forget it, have after it no pain, no flatulence, no feeling of distension, no nausea, but go on digesting it unconsciously. So that if such a case *is* to be looked on as dyspepsia, it is paroxysmal dyspepsia causing loss of consciousness. Supposing the patient had dyspepsia, and supposing that he was invariably much more dyspeptic before each fit occurred, we ought to wonder why dyspepsia "caused" loss of consciousness, and caused it suddenly, and caused it transitorily. Trousseau mentions a case in which attacks of violent giddiness, with deadly pallor, occurred, after a sensation of pressure at the pit of the stomach, soon followed by vomiting. These attacks were put down to dyspepsia. The boy's father and his medical attendant refused to believe in Trousseau's diagnosis of epilepsy; the sequel of the case showed Trousseau to be right. Trousseau says, speaking of what he calls a visceral aura, that it escapes the observation of the physician all the more easily from its simulating other affections in a numerous class of cases. Herpin asks: "Is there anything more strange in the tonic convulsion beginning in the muscles of the digestive canal, than in its beginning in those of the hand and foot?"—a question very pertinent, since, as pallor shows, spasm in epilepsy frequently does begin, or occurs very early, in the muscles (muscular coats) of nearly equally organic parts (facial arteries). The fact is, as cases of meningitis, cerebral tumour, undoubted cases of epilepsy show, that the organic parts are disturbed by cerebral disease in many cases in which visceral disease is supposed to disturb the brain.

We may fairly assume that the viscera and all other parts of the organism are doubly connected with the highest centres, if they are connected with the highest centres at all—nerve-fibres efferent downwards from centres to part of body; nerve-fibres afferent upwards from part of body to centres. Thus there is harmonious action, consent, betwixt the part and the centre; and when one gets out of order the other suffers. If, to speak figuratively, the brain (as in an epileptic fit) fixes the chest, the chest crams the brain with blood. If the brain stops or slows the heart, as in some cases of *le petit mal*, the heart won't supply the brain with blood. It is "You bother me, I'll bother you." There is a multiplication of effects. Hence a study of the several "visceral auras" is of great practical moment. I doubt not that when a discharge begins in a cerebral centre representing especially the stomach, when the fit begins by nausea, that centre, being in an unstable condition, is easily worried into discharging when the digestion is over-worked. Indeed, for more reasons than this, attention to the diet of epileptics is one of the most important things in their treatment, as Dr. Paget, of Cambridge, long ago insisted.

There are two other things referable to internal organs, which occur in slight cases, and more frequently in slight cases than in severe ones—viz., passing urine and fæces. It may be doubtful whether these are owing to epileptic spasm; they may occur after the fit, and be due to "loss of control." They occur after death. However, be these two things direct or indirect results of the paroxysm, they occur, at any rate, practically with the other symptoms. They are valuable helps to the diagnosis of epilepsy, especially in its slighter forms. I say in the slighter forms, for it is said that the urinary and fæcal discharges occur most often, as Herpin long ago asserted, in the *slight* attacks. Passage of urine is most common, and is a valuable help to diagnosis. If a child, but especially if an adult, passes urine in bed, epilepsy is *one* of the things to be carefully investigated for. If passage of urine occurs in a so-called "faint," or in a "giddy attack" in the daytime, there is probably epilepsy, almost certainly.

I will now make some general remarks on the diagnosis of epilepsy, and remark briefly on the question of pathology.

Perhaps one reason why on the occurrence of a few slight attacks there is a hesitation in carrying the evidence to its logical conclusion is, that the patient may, to all appearance, be in first-rate health. Unfortunately this goes, so far as we can yet tell, for nothing at all. Of course, before the first attack, however slight, something must have been going wrong in the nervous centres. The nervous elements must have been become unstable before the first sudden explosion; a gun must be charged before it can be discharged. But what the first step to this is we know not. That nerve-cells somewhere are unstable is a truism. We infer that of necessity there is in every case some pathological process leading to increased nutrition, and therefore instability of cells. But what the pathological process or processes may be we have yet to learn; there is no morbid anatomy of epilepsy proper.

Possibly another reason for hesitation in diagnosing epilepsy is the absence of anything likely to be a cause of so serious a thing as epilepsy, and thus there is a tendency to fall back on the nearest most striking event, and to explain away the symptoms by fright, by dyspepsia, overwork, and so forth. We have not yet discovered the cause of epilepsy in any sense of the word "cause." We note carefully the facts of the above and other so-called causes, but until we find some morbid anatomy we are not justified in anything more than stating that epileptic fits occurred after or during this or that condition or circumstance.

As regarding both pathology and cause, I would repeat that there is a negative pathology; epilepsy proper, slight

or severe, is rarely owing to gross organic disease, whilst epileptiform seizures frequently are. The changes are minute, as is evident enough by their having never been found. We ought to look into the state of each tissue. Is the change in epilepsy primarily arterial, and secondarily nervous, or is it a change beginning first of all in the nerve-cell? This leads to practical inquiry.

Another kind of evidence bearing on the diagnosis of epilepsy is the occurrence of nervous diseases in the patient's near blood-relatives. The fact that his relatives had hemiplegia or apoplexy from cerebral hæmorrhage, is simply *no* evidence that he inherits a disease of the nervous system in the sense that the changes begin in the nervous elements of nervous organs, for the very plain reason that the pathological processes causing them are of a non-nervous kind; if they have a bearing, as I think they have, they point unmistakably to arterial or cardiac changes. But then the nervous affections in the epileptic's family may be such as chorea, neuralgia, or epilepsy proper. Here, again, since nothing is decided as to the pathology of any one of these affections, we cannot possibly say that they point to an inheritance of epilepsy, or tendency thereto, in the sense that they point to changes *beginning* in nervous elements. Why is it that we speak most confidently of the inheritance and interchangeability of those very diseases of which there is no morbid anatomy? I should not make these remarks were they not to lead to a practical inquiry. The hypothesis in possession is that epilepsy begins in the nervous elements of nervous organs, and it is supposed to be supported by the fact that there are often in the patient's family persons who have that or other nervous affections, of which there is no morbid anatomy. I wish to put forward, again, another hypothesis—namely, that the cells suffer secondarily, as a consequence of arterial disease; that there is thrombosis or embolism of small arteries in most cases. I have held this opinion since 1864, and it first occurred to me on finding epileptiform seizures in patients who had valvular disease of the heart. I have since applied it to epilepsy proper. It may be said: "Your statement is only an hypothesis." So is any other view which can be imagined of a disease which has no morbid anatomy. There is, at any rate, as much evidence—much more, I think—in favour of the "arterial" as of the "nervous pathology" of epilepsy. The practical matter is to search in the patient's family history for gout, rheumatism, cardiac disease, hemiplegia, and apoplexy (both usually arterial affairs), as well as to inquire about nervous affections.

ABSTRACT

OF THE

Lettsomian Lectures

ON

BRONCHIAL ASTHMA.

Delivered at the Medical Society of London in January, 1879,

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LECTURE II.

IN this lecture I purpose to enter more fully on the consideration of bronchial hyperæmia and congestion as an element in the production of difficult breathing of asthmatic type. There are those who appear to regard bronchial congestion as the exclusive cause of asthma; but Weber, who appears to be the original propounder of the bronchial congestion theory, and who attributes this congestion to vaso-motor nervous influence, is far from denying that bronchial spasm is also a factor in the causation of the asthmatic fit; and Biermer, who supports decidedly the doctrine of bronchial spasm, admits also that bronchial congestion often co-exists, and contributes to the production of dyspnœa.

Good illustrations of bronchial congestion and flux associated with asthma are furnished in cases of the so-called summer catarrh or hay asthma. In a typical instance a little boy, eight years old, who has always had good health, is taken quite suddenly, while at play in a hay-field, with profuse flow of tears and swelling of the eyelids to an extent wellnigh blinding; he is taken indoors, and gradually recovers. The subsequent history tells of repeated attacks of catarrh every summer whenever the hay is about, but we hear nothing of asthmatic breathing till the age of twenty was reached; then asthma at night became most distressing, and the patient thus describes his case:—"Asthma at night is my great trouble during the month of June; after a few whiffs of a cigar I can get my breath easier and manage a deep inspiration, which seems to burst open the contracted bronchial tubes, but they soon contract again and reset themselves at a diminished calibre. That which gives me real aid is smoking strong tobacco till I am in a state of collapse, with a failing pulse and a damp sweating skin."

Recent experiments by Dr. Blackley have proved how the inhalation of the pollen of the *Anthoxanthum odoratum* and many other flowering grasses will at once, in specially susceptible persons, bring on rapid congestion of the nares and air-passages, increasing so quickly that soon both nasal passages become entirely choked. By lying flat on the back, Blackley found he could soon bring on a regular fit of asthma, which he attributed to the congestion of the bronchial membrane brought on mechanically by the horizontal position. Bronchial congestion doubtless causes obstructed breathing, but its action, in my opinion, goes further in exciting those nerves from the pulmonary plexus which Remak has demonstrated to pass into the bronchial muscle, and so throwing this muscle into a state of spasm. On this principle we may explain the bronchial spasm which may complicate an attack of bronchitis; and the late Dr. Salter used to say that bronchitis without bronchial spasm was, in his experience, almost unknown.

Sometimes, in cases of catarrhal asthma, I have noticed an erythematous rash appear on the skin coincidently with the catarrh. This was exemplified in the case of Mrs. R. G——, who for many summers suffered from hay catarrh, but never had asthma till, during one of her catarrhal attacks, she indulged in a fit of excessive laughter, after which she could not get her breath, and became subject to asthma in addition to the pre-existing catarrh. Whenever the catarrhal asthma came on, there was always a great itching under the chin and also an erythematous rash over the chest. In another case, that of a medical man, asthma and urticaria came on simultaneously. Cases such as these seem to show that vascular congestion, due to vaso-motor nervous influence probably, is an element to be considered in the causation of catarrhal asthma.

Of the same type with hay asthma are those cases of the affection due to the smell of linseed-meal, lampblack, ipecacuanha powder, &c. And with respect to the action of this last agent, I may quote the case of an asthmatic patient lately seen by me, who said, "Pray don't prescribe ipecacuanha, for once I had fifteen drops of the ipecacuanha wine, and it at once brought on such a fit of asthma that I was nearly choked; my lower chest was powerfully retracted, the difficulty of drawing breath was extreme, and perspiration rolled off me." Such a sudden attack as this obviously must have been due to spasm rather than congestion, and those whose asthma is relieved by smoking strong tobacco *ad deliquium animi* can hardly be thought to owe their sufferings to congestion alone.

In cases of old standing asthma, complicated with vesicular emphysema of the lungs, a word may be said as to prognosis. We know how, under the influence of an attack of bronchitis with obstructed tubes, and how, as a result of attacks of whooping-cough, a temporary condition of pulmonary emphysema may result. Experiments on the effect of section of the vagus nerve, and observation of cases in which the function of this nerve has been interfered with by the pressure of a tumour, also show that imperfect innervation may cause an emphysematous state of lung. Considering these matters, we need not, when we examine the chest of an asthmatic patient soon after his fit, and find there all the signs of pulmonary distension, at once set him down as incurable because of this emphysematous distension of lung. The way in which patients of this class, on getting to a suitable climate, at once become able to walk long distances, and ascend hills, shows that the emphysema must be either very slight or merely a temporary state, due in some measure, probably, to defective innervation of lung. It is in these cases where I have seen

such excellent results follow on the use of nux vomica and strychnia as medicines.

The really unpromising cases are those where there is emphysema of lung and at the same time a great want of activity about the diaphragm. We observe a distended chest and epigastrium, with very little abdominal movement in respiration, the diaphragm being apparently much depressed and in a semi-paralytic condition. Auscultation shows great feebleness in the air-movement within the chest, prolonged feeble expiration, and marked weakness in the voice. If there be a remedy for such cases it must be sought in careful regulation of diet and the breathing of a pure and tonic air. Another class of cases where bronchial spasm tends ultimately to serious tissue-change may be found in those complicated with atrophous emphysema of the lung. Here the bronchial muscle, worn out by attacks of spasm and inflammation during a course often of many years, becomes thin and wasted, and as this degenerative change progresses bronchial spasm gets less frequent, while dyspnœa of expiratory rhythm becomes constant and abiding. Fibrinous casts of the smaller air-tubes are sometimes expectorated by patients affected with this kind of emphysema, and I have known ulcerative destruction of lung and a true phthisis to lead to a fatal result in more than one instance where these small fibrinous strings have been expectorated. Sometimes the heart participates in the same fibroid or fatty degeneration that affects the lungs; it becomes small and atrophied, and where this change has taken place in the organ it may lead to death by syncope.

The subject of the preventive, palliative, and curative treatment of the various forms of asthma that have now been noticed will form the subject of the next and concluding lecture.

NITRO-GLYCERINE AS A REMEDY FOR ANGINA PECTORIS.

By WILLIAM MURRELL, M.R.C.P.,

LECTURER ON PRACTICAL PHYSIOLOGY AT WESTMINSTER HOSPITAL, AND ASSISTANT-PHYSICIAN TO THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

(Continued from p. 81.)

THINKING there might be individual differences of susceptibility to the action of nitro-glycerine, I have laid my friends and others under contribution, and have induced as many as possible to give it a trial. I have notes of thirty-five people to whom I have administered it—twelve males and twenty-three females; their ages varying from twelve to fifty-eight. I find they suffered from much the same symptoms as I did, although it affects some people much more than others. Of the number above quoted, only nine took minim doses without experiencing decided symptoms. Women and those below par are much more susceptible to its action than are the strong and robust. A delicate young lady, to whom, adopting Mr. Field's suggestion, I administered it in drop doses for the relief of neuralgia, experienced very decided effects from it, each dose producing a violent headache lasting from half an hour to three hours. A married woman, aged thirty-five, took one minim with very little inconvenience, but was powerfully affected by two. She was obliged to sit down after each dose, and was positively afraid to move. It made her hot, and caused such a beating in her head that she had to support it with her hands. She experienced a heavy weight on the top of the head, and also a sharp darting pain across the forehead, which for a moment or two was very painful to bear. A friend, who for some days took four drops every three or four hours, informs me that at times it affected his head "most strangely." The pulsation was very distressing, and often lasted an hour or more, being intensified by moving. It has relieved him of an old-standing facial neuralgia, and he is enthusiastic in its praise. A young woman, aged twenty-nine, complained that after every dose of the medicine—one minim—"it seemed as if the top of her head were being lifted off," and this continued sometimes for five minutes, and sometimes longer. The medicine made her bewildered, and she felt sick. A patient with a faint apex systolic murmur was ordered one minim in half an ounce of water four times a day. He took two doses, but it caused "such a beating, thumping, hot pain" in his head that he was unable to continue it. A young man who was given nitro-glycerine in mistake for phosphorus said it made his temples throb, and he could see his pulse beat so distinctly that he was frightened. It caused a burning and flushing in his face, and "took every bit of strength away." This would last for twenty minutes or half an hour after each dose. There was no headache. That alarming symptoms may be produced by large doses, is shown by the following case. A woman, aged fifty-one, was ordered drop-doses of the one per cent. solution every four hours. This was taken well, and at the expiration of a week the dose was doubled. No complaint being made, it was then increased to four minims, and after a time to six. The patient said "the medicine agreed with her," and even leading questions failed to elicit any complaint of headache or the like. After the medicine had been taken continuously for five weeks the dose was increased to ten minims. The patient then stated that the medicine no longer agreed with her; it made her sick after every dose and took her appetite away. She always vomited about five minutes after taking the medicine, the vomiting being immediately followed by headache. The medicine made her "go off in a faint" after each dose. She had three "fainting fits" in one day, and could not venture to take another dose. She became quite insensible, and once remained so for ten minutes. Each fainting-fit was "followed by cold shivers," which "shook her violently all over." Her husband and friends were greatly alarmed, but she thought on the whole it had done her good. She had never noticed that the medicine produced drowsiness. In another case a three-minim dose taken on an empty stomach caused a feeling of faintness; "everything goes dark," the patient said, "just as if I were going to faint." The patient could take the same dose after meals without the production of any unpleasant symptom. Drowsiness is not an uncommon result of taking nitro-glycerine. A woman who was given drop-doses four times a day said that she usually went fast asleep immediately after each dose, sleeping from three to four hours. In my own case the desire for sleep was almost irresistible, although the sleep seldom lasted more than an hour. In exceptional cases none of the ordinary symptoms are exhibited. A man with epispadias—to be presently mentioned—took twenty-five minims of the one per cent. solution without any inconvenience.

From a consideration of the physiological action of the drug, and more especially from the similarity existing between its general action and that of nitrite of amyl, I concluded that it would probably prove of service in the treatment of angina pectoris, and I am happy to say that this anticipation has been realised.

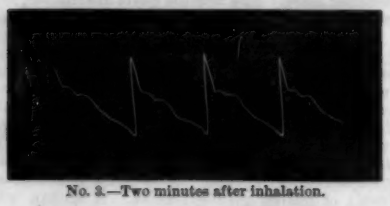
As a preliminary step I was anxious to obtain a comparative series of sphygmographic tracings, and for these I am indebted to the kindness and courtesy of Dr. Fancourt Barnes, whose extensive practical acquaintance with the sphygmograph is a guarantee of their accuracy. During the last three months Dr. Barnes has taken over 150 tracings of my pulse, some showing the influence of nitro-glycerine, in others of nitrite of amyl. It would be tedious to describe the observations in detail, more especially as the tracings speak for themselves, and we consequently give only a summary of our results. Judged by the sphygmographic tracings, the effects of nitrite of amyl and of nitro-glycerine on the pulse are similar. Both drugs produce a marked state of dicrotism, and both accelerate the rapidity of the heart's action. They differ, however, in the time they respectively take to produce these effects. The full action of the nitro-glycerine is not observed in the sphygmographic tracings until six or seven minutes after the dose has been taken. In the case of nitrite of amyl the effect is obtained in from fifteen to twenty seconds after an inhalation or a dose has been taken on sugar. The influence of the nitrite of amyl is extremely transitory, a tracing taken a minute and a half after the exhibition of the drug being perfectly normal. In fact, the full effect of the nitrite of amyl on the pulse is not maintained for more than fifteen seconds. The nitro-glycerine produces its effects much more slowly; they last longer, and disappear gradually, the tracing not resuming its normal condition for nearly half an hour. The effect may be maintained for a much longer time by repeating the dose. Nitro-glycerine is more lasting in its power of producing a dicrotic form of pulse-beat, and consequently in cases where the conditions of relaxation and dicrotism are

desired to be maintained for some space of time, its exhibition is to be preferred to that of nitrite of amyl.

Influence of Nitrite of Amyl on the Pulse.

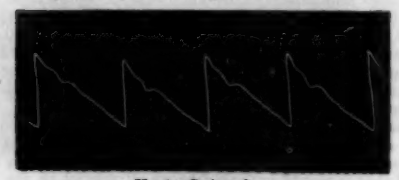
No. 1.—Before inhalation.

No. 2.—One minute after inhalation.

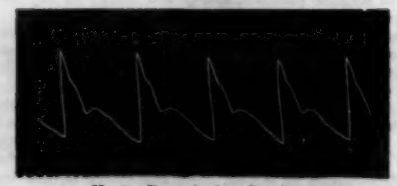


No. 3.—Two minutes after inhalation.

Influence of Nitro-Glycerine on the Pulse.

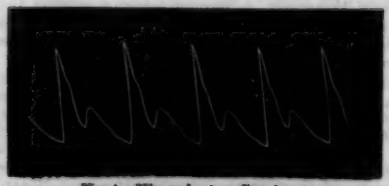


No. 1.—Before dose.



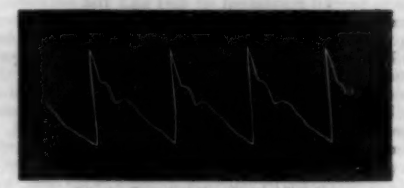
No. 2.—Two minutes after dose.

No. 3.—Eight minutes after dose.

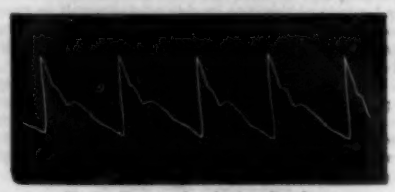


No. 4.—Nine minutes after dose.

No. 5.—Ten minutes after dose.



No. 6.—Twenty-two minutes after dose.



No. 7.—Twenty-six minutes after dose.

Whilst making some observations with nitro-glycerine on a patient suffering from epispadias, he called attention to the fact that the administration of the drug always caused an increased flow of urine. On examination, fifty-three minutes after the administration of a dose of twelve minims of the one per cent. solution, the urine was seen spouting from the extremity of each ureter in a little jet some three or four inches high. Ordinarily the urine dribbles away drop by drop, and never spouts out. The patient was much amazed, and said that in the whole course of his life he had never known it go on in that way. If he took beer or spirits it would increase the flow, but this, to use his own expression, "licked everything." He was made to lie on his face, so that all the urine might be collected. In twelve minutes he secreted 6½ oz. of urine, the sp. gr. of which was only 1000. He was then given another dose of fifteen minims in a little water, and in the next twelve minutes he secreted 7½ oz. Three days later, no nitro-glycerine having been given in the mean time, an observation was made with the view of determining the normal rate of secretion. In half an hour he secreted 3½ oz., the sp. gr. of which was 1005. This, he stated, was more than he usually passed, for he had taken three-quarters of a pint of milk about two hours before, and "it was just running through him."

On another occasion a more systematic observation was made. His urine was collected every quarter of an hour for two hours, patient having had nothing to eat or drink for four hours previously. The quantities passed were as follows:—

1st quarter of an hour,	2½	drachms.
2nd	,,	,,	2½	,,

He was then given fifteen minims of the one per cent. nitro-glycerine solution in a drachm of water.

3rd quarter of an hour,	12	drachms.
4th	,,	,,	16	,,
5th	,,	,,	6½	,,
6th	,,	,,	8½	,,
7th	,,	,,	5½	,,
8th	,,	,,	3	,,

The times were accurately taken, and in no instance was any of the urine lost. The increased secretion was obviously due to the drug. It is noteworthy that the maximum increase was not till the second quarter. Every specimen was examined as it was passed, and they were all free from sugar and albumen. The quantity was too small to admit of the sp. gr. being taken by the urinometer, except in the case of the fourth quarter, when it was found to be

1003. It should be mentioned that this patient was very insusceptible to the action of the drug, and he experienced none of the ordinary symptoms from this dose.

In another observation on the same patient the results were still more striking. The same method of collecting the urine every quarter of an hour was adopted, and the following figures were obtained:—

		Sp. gr.	Pulse.
1st quarter of an hour,	4 dr.	—	64
2nd ,, ,,	10½ dr.	1003	64

Given twenty minims of one per cent. nitro-glycerine in one drachm of water.

		Sp. gr.	Pulse.
3rd quarter of an hour,	7 oz.	1000	80
4th ,, ,,	7½ oz.	1000	76
5th ,, ,,	1 oz.	1002	72
6th ,, ,,	7 dr.	—	68
7th ,, ,,	4½ dr.	—	64

The acidity of the urine varied inversely as the quantity passed. Thus, before the administration of the drug, it was distinctly acid, during the third and fourth quarters it was almost neutral, the acidity then gradually returned, till, in the seventh quarter, it was as marked as it had been at first. No sugar or albumen was detected either before or after the administration of the drug. The figures given under the head of pulse are averages of several observations made during each quarter of an hour. No subjective symptoms of any kind were produced. The experiment was commenced at ten in the morning, and patient had had nothing to eat or drink since breakfast at six. This epispadiac man was curiously insusceptible to the action of the drug as far as subjective symptoms were concerned. I gave him the one per cent. nitro-glycerine solution on ten different occasions, in doses of 3, 4, 4, 6, 12, 15, 15, 20, and 25 minims, without causing him a moment's pain or uneasiness. He never complained of headache, or beating or throbbing in any way, and yet the influence, both on the pulse and on the secretion of the urine, was well marked. Even the small doses affected the rate of his pulse. Thus, on one occasion, his pulse was taken every minute for eleven minutes, the average being 68. He was then given a little water in a medicine glass—a practice always followed in these observations—to test the effects of expectoration. The pulse remained constant at 68 during the next five minutes, and 6 minims of the one per cent. solution were then given in water. In a minute and a half the pulse had risen to 76, and this increased rate was maintained for the next fifteen minutes, when it sank again to normal. On another occasion his pulse, taken on ten consecutive minutes, was found to be 80. He was then given twenty minims of the one per cent. solution in water. Half a minute after the pulse was still 80, in one and a half minutes after it was 96, and in two and a half minutes after it was 100, the average of the eight minutes following the administration of the drug being 96.

Such were the results of the ten series of observations on this man—negative as regards his own sensations. As a final experiment it was decided that he should take a larger dose. At 11.51 A.M., sitting still in the cool laboratory, and having had nothing since an early breakfast, his pulse was 76. At 11.55' 30" he took half a drachm of the one per cent. solution in a little water. At 11.56, pulse 76; at 11.57, 92; at 11.58, 96, soft and regular. At 12.4 he commenced yawning violently, and said he felt very sleepy. At 12.7 the pulse fell to 68, the yawning ceased, and he became very pale and complained of nausea. He was found to be perspiring freely all over the body, and was so hot that he kicked off his boots. The nausea lasted till 12.10, when the colour had returned to his face, and he said he felt all right again; pulse 76 to 80. There was no headache, and even a sharp run upstairs failed to produce any feeling of pulsation.

(To be continued.)

ON THE INTRODUCTION OF THE SOUND WHEN IT CANNOT BE PASSED.

A SOLUTION OF THE PARADOX.

BY W. F. TEEVAN, B.A., F.R.C.S.,
SURGEON TO THE WEST LONDON HOSPITAL AND ST. PETER'S HOSPITAL.

IT occasionally happens, on account of a great enlargement of the third lobe of the prostate, or the engorgement of one of its lateral lobes only, or the formation of a valve at the neck of the bladder, or the existence of a tumour of a malignant nature, that, although an elastic catheter may be passed into the bladder, the introduction of the metal sound is an impossibility through the tortuosity of the canal. In such a dilemma English surgery offers no resource; and, although it may be of the utmost importance to pass a sound to effect a complete exploration of the bladder, that organ would, under such circumstances, remain an unexplored region were it not that a French surgeon has by a simple combination shown how the difficulty may be overcome. A celebrated surgeon being unable, after several attempts, to pass a sound on a gentleman, the patient sought the advice of M. Mercier, who, being equally unsuccessful, put into execution a plan which he had previously devised for such an emergency. The vesical extremity of a large soft catheter having been cut off in such a way as to leave a rounded end (B), a slit (*b a*), about one inch long, was made on the concavity of the tube (A B), and a strong ferrule (C) fixed on the other extremity. Some lard or wax having been put into the slit, so as to make the end smooth, the tube is introduced into the bladder. A long, slender sound, consisting of two portions (D E and F G) respectively thirteen and twelve inches in length, and capable of being screwed together, is now taken. Its beak should be placed at a more obtuse angle to the shaft than usual in order to facilitate the passage of the instrument through the soft tube. A movable handle (H) having been screwed on to the vesical half of the sound, the surgeon holds the ferrule (C) of the soft tube (A B) in his left hand, and passes the sound through the tube till the bulbous extremity of the instrument has fairly emerged from the slit (*b a*). The tube (B A) and the sound (D E) are now to be seen *in situ* as when in the bladder. The next step is to remove the soft tube so as to permit of the free manipulation of the sound and the transmission of sensations unimpaired by the coating of soft tube. This is effected by removing the handle (H) and screwing the long stem (F G)

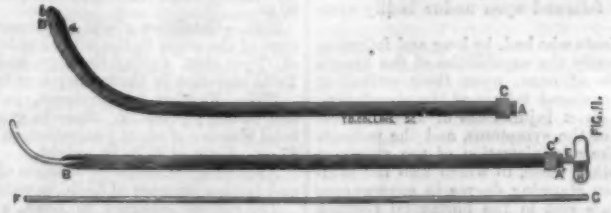


FIG. II.

into the vesical portion (E B). The soft tube (B A) can now be retired, and the long stem removed. The handle having been screwed on to the sound again, the instrument is ready for use. Thus by the simple means I have related M. Mercier has enabled surgeons to overcome an otherwise insurmountable difficulty.

Portman-square.

CITY OF DUBLIN HOSPITAL.—Mr. W. Patton has been elected resident surgeon to this institution; and the appointment has not been made too soon, as the absence of such an officer has caused a good deal of complaint in various quarters. The Corporation of Dublin may on this occasion claim the credit of the appointment, as the suggestion was due to them.

ON EXCESSIVE INSUFFICIENCY OF THE HEART'S ACTION:

A FREQUENT AND NOTEWORTHY COMPLICATION OF DIABETES MELLITUS.

BY RICHARD SCHMITZ, M.D., NEUENAHR.

(Translated from the German, at the Author's request, by DAVID PAGE, M.D., *Kendal.)*

IN well-marked cases of diabetes of somewhat long standing the advent is not unfrequently observed of symptoms which, although often ascribed to congestive states of the brain, are in reality an expression of the contrary condition. These symptoms are chiefly: great shortness of breath; a sometimes *sudden* loss of appetite; giddiness; somnolency; a tendency to faint; occasional loss of consciousness; vomiting; and even convulsions and transient paralytic phenomena. Bodily exertion excites and aggravates these symptoms; whilst absolute rest in the horizontal position and the use of stimulants palliate and even tend to remove them. In such patients the pulse is small and weak, sometimes quick, sometimes remarkably slow, and at times intermittent; the respiration hurried but often normal. *The impulse of the heart is always very weak, indeed scarcely to be felt;* and the sounds over the præcordia and along the great vessels are exceedingly faint and indistinct. The first sound at the apex is often hardly, and at times not at all, perceptible. Patients of this kind frequently die very suddenly, but in most of the cases in which the above symptoms have been of some duration a condition of coma supervenes, from which the patient cannot be aroused. It is therefore quite evident that in such cases we have to deal with a state of extreme cardiac debility—the expression of enervation and fatty degeneration of the heart. Now this pathological condition is a very usual one to find in chronic diabetes, and one which is readily enough intelligible.

If, then, we consider the many risks to which the weak heart of fatty degeneration is constantly exposed, an explanation is not far to seek why so many of these patients are cut off suddenly, as well as reasons for the most sedulous watchfulness and attention in their treatment.

Of 109 diabetic patients who have come under my observation, 80 exhibited all the phenomena, already cited, of a feeble heart, although the subjective symptoms present to a greater or less degree in most were absent in a few. In twelve of these cases the disease terminated suddenly, death taking place at once in three instances, and in the remaining nine being preceded with well-marked cardiac paralysis. In all of the twelve the subjective phenomena and physical signs of heart disorder existed, and in eight the fatal termination had immediately followed upon undue bodily exertion.

In the case of two patients who had, by long and fatiguing journeys, tested too severely the capabilities of the heart's performance, I was able at once, upon their arrival at Neuenahr, to recognise profound failure of the circulation. In both cases neglect of strict injunctions of absolute rest led to rapid aggravation of the symptoms, and the patients succumbed in spite of the administration of the strongest stimulants. In seven other cases, in which also the symptoms had increased to an alarming degree in consequence of bodily fatigue, absolute rest in the horizontal position and the exhibition of stimulants were successful in alleviating the distress and causing them gradually to disappear.

In practical illustration of this insidious and little noticed complication of diabetes, the following brief details of the clinical history of two cases may prove instructive.

CASE 1.—Herr M——, formerly in good health, and in whose family no inherited diabetic predisposition is known to exist, suffered, in April, 1872, from an exceedingly painful injury to the foot. The wound shortly healed, but the patient failed to regain his ordinary state of health, and began to lose flesh and strength. These symptoms were accompanied by intense thirst and an increased secretion of urine, an examination of which placed the presence of diabetes beyond doubt. The patient, who was sent to me by Prof. Rühle of Bonn, came under treatment in June, 1873.

Present condition.—He is twenty-four years of age; dejected and apathetic in appearance; listless, and answers but slowly upon repeated questioning. Owing to cataract, he cannot see with the right eye and but indistinctly with the left. He complains of a sense of great weariness and unfitness for exertion, and is so languid that he can with difficulty walk a few yards. He suffers from shortness of breathing, but sleeps much and soundly. Complains also of lightness of the head, giddiness, inability to think clearly, and attacks of unconsciousness. These symptoms are aggravated upon exertion, and relieved by persistent rest. He has tormenting thirst and but little appetite; digestion irregular, and tendency to diarrhœa; skin dry and parched; muscles and subcutaneous fat badly developed; tongue dry and heavily coated; mucous membrane very anæmic. His breath has a stinking and unpleasant smell. Pulse 94, very small and intermittent. Body weight 105 lb. avoirdupois; having lost thirty pounds within four months.

The physical examination of the chest, which was somewhat flattened, revealed in regard to the lungs nothing abnormal save rather prolonged expiration over the scapular regions. The impulse of the heart was, however, remarkably weak, hardly perceptible; the heart sounds were very indistinct and faint, the first sound at the apex scarcely audible. Liver and spleen normal. The daily secretion of urine pale, yellow, and faintly acid; specific gravity 1030; no albumen; grape sugar 4·8 per cent. The urine voided during the night bright-yellow, faintly acid, sp. gr. 1030, no albumen; grape sugar 4 per cent. Total quantity voided in twenty-four hours, 124 ounces.

The treatment was primarily directed to the enfeebled action of the heart, and warding of impending danger of paralysis, with which object in view all physical exercise was forbidden, and rest in the horizontal position, as much as possible in the open air, enjoined. Strict diabetic diet, embracing the most nutritive kinds of food and stimulants, was prescribed, with a simple preparation of iron combined with the ethereal tincture of castor. The patient was allowed to drink from six to eight glasses of the Sprudel daily.[1]

June 29th.—Manifest improvement. Less giddiness and inclination to drowsiness. Pulse 72, stronger, but still intermittent.

7th.—Vertigo has disappeared, increasing strength, better appetite, and less thirst. Pulse 80, stronger, and no intermittency. First sound of the heart is now distinctly audible at the apex. Day urine pale-yellow, faintly acid, sp. gr. 1026; grape sugar 1 per cent. Night urine pale-yellow, neutral, sp. gr. 1020; grape sugar 0·5 per cent. Quantity passed in twenty-four hours, 76 oz.

11th.—Feels stronger, and is able to go out a little. Pulse 76, strong. Heart sounds more distinct, appetite good, but little thirst. Tongue moist and clean; no fetor of the breath. Has gained three pounds and a half in weight. Day urine pale-yellow, faintly acid, sp. gr. 1020, mere traces of sugar, of which there is none in that voided during the night. Quantity secreted during the twenty-four hours, 50 oz.

20th.—Condition about the same, save that a reappearance of the sugar in the urine has taken place to the extent of ·7 per cent. during the day, and ·4 per cent. at night. Total secretion in the twenty-four hours, 52 oz.

27th.—Further improvement, patient feeling quite well and strong; pulse 72. Specific gravity of the urine, 1010; total absence of sugar; secretion in the twenty-four hours, 47 oz. Gain of 2½ lb. in weight.

Aug. 12th.—Continued absence of all diabetic symptoms and further increase of 3½ lb. in weight.

The patient returned to Bonn, where he placed himself under the treatment of Professor Saemisch, who successfully performed the operation for cataract in the left eye. Since 1873, I have heard from time to time from him. He has been able to resume his occupation, and continues well and perfectly free from all symptoms of diabetes.

CASE 2.—Herr L——, aged fifty-seven years, came to me in August, 1874. Nothing is known as to the causes of death of his parents, but a nephew suffered from diabetes, for which he had been successfully treated by myself. The

[1] The Sprudel (Der grosse Sprudel so-called) is the chief of several mineral springs at Neuenahr. These springs arise from the basaltic formation of the Ahr valley strongly charged with carbonic acid gas, at various degrees of temperature (the Sprudel at 104° Fahr.), and possess alkaline combined with slightly chalybeate qualities. At the adjoining hamlet of Heppingen is the now well-known Apollinaris spring. Neuenahr is about seven miles from Remagen-on-the-Rhine.—TRANSLATOR.

patient has five children, all of whom are healthy. In his case the symptoms of the disease were discovered for the first time about three years ago. No assignable cause.

Present condition.—He is much emaciated and broken-down in appearance, stoops, and his gait is slow and unsteady. The expression of his countenance, which is flushed, is rather anxious than apathetic. Skin dry and harsh; muscles and adipose tissue dwindled away; pulse 88, very weak, hardly perceptible. Temperature normal; tongue dry and furred; mucous membrane bloodless; strong fetor of the breath; he complains of excessive weakness and shortness of breath; great inclination to sleep; has frequent and violent attacks of vertigo; no appetite; tormenting thirst. The physical examination shows the lungs to be sound; heart's impulse very weak, scarcely perceptible; first sound at the apex indistinct and almost inaudible; liver and spleen normal. Body weight, 108 lb. avoirdupois; has lost much weight during the last three years. Day urine: pale yellow, acid; sp. gr. 1044; grape sugar, 8 per cent; no albumen. Night urine: yellow; acid; sp. gr. 1044, grape sugar, 8 per cent; no albumen; quantity voided in twenty-four hours, 196 oz.

In consideration of the extreme debility of the heart, rest in the horizontal position was enjoined, all walking or standing being absolutely interdicted. The strongest nourishment was ordered, with generous hock, cognac, strong coffee or tea, and beef essence; to allay thirst, cold Sprudel.

Aug. 5th.—The patient feels somewhat stronger and less oppressed. Pulse 68, weak; appetite a little better, but otherwise no improvement.

7th.—Notwithstanding my earnest prohibition of all movement, the patient went out of doors yesterday and again to day, having this morning gone, while fasting, to the spring, to drink the waters there. I saw him at six o'clock in the evening, when he was extremely prostrate and suffering from dyspnœa. Pulse hardly perceptible, intermittent, and very irregular, ranging between 40 and 50 beats to the minute; first sound of the heart inaudible; respiration 40; temperature 97·5° F. Mustard poultices applied to the chest, and strong coffee and brandy administered, with ten-grain doses of carbonate of ammonia every hour. At eight o'clock I found the patient a little better; the pulse had increased to 70, but was still intermittent; respiration 30. At midnight he felt much oppressed, and vomited; threatening syncope; pulse not perceptible. Strong coffee with a large dose of musk brought about immediate improvement; the pulse returned, dyspnœa was relieved, and the feeling of nausea and faintness disappeared.

8th.—At 6 A.M. I found the patient pulseless and in a drowsy condition. Fifteen grains of musk brought about for an hour a return of the pulse and consciousness, when the patient thereafter became comatose and died towards evening.

It is from a consideration of facts such as these, which I have sought to illustrate in the above-cited instances, that I am led to insist most emphatically upon the supreme importance of exercising without delay close watchfulness and control over the action of the heart in all cases of diabetes. Should the physical examination warrant the presumption of a feeble, fatty, degenerated heart, then the patient ought, above everything else, to be warned of the risk he incurs by undue effort of the body. In this way, and by the administration of nutritive food, with the moderate use of stimulants, the exhibition of some preparation of iron, and lastly, when within the patient's means, a residence in a pure, dry, and bracing atmosphere, many of the most dangerous accidents will with certainty be prevented.[2] I would repeat that, whenever the symptoms in diabetes assume an alarming character, no time should be lost in enforcing absolute rest and pushing the administration of powerful stimulants.

[2] As an excellent winter resort for the diabetic invalid, the warm, dry, and stimulating climate of the Riviera, especially of Bordighera, is to be recommended.

VACCINATION GRANTS.—Mr. H. P. Leech, of Woolpit, Suffolk, has received a Government gratuity of £10 13*s.* for successful vaccination in his district (fifth time); Mr. R. Istance, Risca, near Newport, Mon., £19 16*s.* (third time); Mr. James Dearden, of Great Harwood, Accrington, £9 9*s.* (third award); Dr. Jno. Dearden, of Church, near Accrington, £23 8*s.* (third award); Mr. T. T. Blease, Altrincham, £31 15*s.* (fourth time); Mr. W. Inglis Mason, Sudbury, Suffolk, £22 10*s.* (third time).

EXCISION OF A LARGE PORTION OF THE FEMUR AFTER GUNSHOT WOUND.

BY W. P. TRITTON, M.R.C.S. ENG., L.S.A. LOND.,
LATE SURGEON-IN-CHIEF, ZARBLANE HOSPITAL, CONSTANTINOPLE.

I WAS one of the surgeons employed during the late Russo-Turkish war, and the notes of a case that occurred in my practice during that time may perhaps be of interest to the readers of THE LANCET.

The patient, an Arab serving in the Turkish army, was a well-built man about 5 ft. 9 in. in height, and about thirty years of age. He had enjoyed good health up to the time of his being wounded. In the early part of December, 1877, he was admitted into the "Kishlah," a large military barracks in Adrianople, converted into a hospital during the war. When I first saw him, he stated he had been wounded about twelve days before. He had seen a doctor at the front, who had put on rough splints and sent him down with the other wounded.

On making an examination of the leg, I found it somewhat swollen and œdematous. There was a bullet wound in the middle third of the thigh, the ball having passed through the limb from without inwards, and from both the aperture of entry and exit of the ball there exuded a thin pus. I then made a further examination by means of a probe and my little finger, and found a great many small fragments of bone and one large one, all of which were quite loose. It was evident this was a compound comminuted fracture of the femur, and the treatment usually set forward in such cases is immediate amputation. I was very unwilling to perform this operation, as every case with us of amputation of the thigh had proved fatal. Besides, the leg seemed in such good condition, and the man's health had suffered so little, it looked almost a pity to sacrifice the limb. I removed some of the smaller fragments of bone, and again examined it very carefully, and my opinion was that the continuity of the bone was not altogether destroyed by the ball, but the periosteum on the anterior surface appeared to have been preserved by the aponeurosis of the anterior muscles of the thigh, and a thin layer of callus was thrown out on the under surface of this periosteum. Supposing my diagnosis to be correct, I thought the limb might be saved, so I decided to put the patient under chloroform and make an even more thorough examination. This was done, and I removed through the wounds as many splinters of bone as possible. I was then enabled to get my fingers in on each side; by this means I found the femur was split up considerably in the direction of its long axis, but I still made out that there was a thin arch of bone anteriorly, which kept up the continuity.

Under these circumstances I determined to perform a resection of the bone, and to remove all the fragments, thus endeavouring to save the limb. I was surrounded by four or five Turkish surgeons, two or three Germans, and a Greek, who were all working in the same hospital. I invited them to examine the case, which most of them did. I then explained what I intended doing, and asked their opinion, but they all, without exception, opposed my views. They held that the bone was completely shattered, and nothing but amputation was possible. They ridiculed the idea of my performing a resection and saving a useful limb. They declared that when I got half through the operation I should find my diagnosis was wrong, and would in the end be compelled to amputate. Well, in the face of such strong opposition, I was at a loss how to act, so I requested Dr. Sandwith, of the Stafford House Society, who was then working in another part of the same hospital, to examine the case with me. He very kindly did so, and agreed with me in a modified operation being possible; so I made up my mind to operate in spite of the antagonism of my Eastern colleagues. I began by enlarging the wound on the outer side of the thigh, making an incision four inches long down to the bone. I then did the same on the inner side. Avoiding the artery by this means, I was able to remove all the remaining fragments with the exception of the large one before alluded to, which I had to nip in two with the forceps, and remove in pieces. This main piece was about five inches in length, and was split right into the medullary cavity. The ball seems to have struck the bone a little pos-

terior to the median line of the transverse axis, and split it both ways in the direction of the long axis, as is commonly the case with the present conical balls. All the fragments now being removed, some of my unbelieving Turks again examined it, and confessed there was an arch of continuity. I passed a drainage-tube through the limb, and stuffed the wound with lint dipped in carbolic oil. I also put on splints to keep the limb at perfect rest, and used sandbags to steady it when the patient was in bed, at the same time keeping up extension by means of the American stirrup. The patient's temperature went up a little for a few days, but otherwise he had no bad symptoms. Callus was thrown out, and the wounds closed up. About seven weeks after the operation the man was able to walk out of the hospital by the aid of a crutch, and I had the pleasure of letting the Turkish surgeons see him. There was about an inch and a half of shortening, due to muscular contraction.

I select this case from among many others as being, I think, especially interesting, amputation being recommended in these cases by most writers.

CAPSICUM IN EXTREME CASES OF DELIRIUM TREMENS.

BY BINGHAM CROWTHER, L.R.C.P.L., &c.,
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THE two cases I am about to mention will prove that we have in tincture of capsicum a most valuable remedy in dangerous cases of delirium tremens, and its action in the second case (complicated with pneumonia) points to a new line of treatment for that affection, for pneumonia occurs in this country chiefly in individuals who have been subjected to lowering agents (hard work, cold, wet, &c.) It must be owing to its stimulating and derivative effects that capsicum is of value both in the delirium tremens cases and in the pneumonic complication. It will be noted that capsicum acted in many ways in common in both the cases I am about to mention. First, the rapidity of its action, reducing all the tremor and agitation (in a few hours), followed by a calm and prolonged sleep. Second, the skin, from being clammy, is soon restored to its natural warmth, and perspires freely. Third, the pulse, which before its use is 140 to 150, rapidly falls to 100, and instead of being small and compressible, regains its fulness and volume. Fourth, both the kidneys and bowels act freely, large quantities of urine being passed frequently, and the alvine evacuations in large quantities (the bowels being continually relaxed whilst taking the capsicum). It must be to its derivative action that the brain so rapidly becomes tranquil. All these actions were well marked in the cases I am about to relate, and they seem, both from their therapeutical and physiological points of view, to be typical of the known action of capsicum.

CASE 1.—G. E——, aged forty-eight, admitted April 3rd, 1878. Is tall, fair, and well built, and for several nights has been without sleep. History of being a heavy drinker, chiefly of spirits. All the known ordinary remedies had been tried by his surgeon prior to admittance; the case becoming extreme necessitated his removal here. (The same patient was under treatment for three days in January, 1878, in a similar condition. Bromide of potassium, ten grains every four hours for two days, failed to relieve; and tincture of digitalis, in three doses of three drachms every four hours, produced a sound sleep and rapid recovery.) On admission he is constantly moving about, talking all sorts of rubbish, giving orders, &c., with much muscular tremor. He answers some questions rationally when spoken to. Pulse 140, weak and compressible. Tincture of digitalis ordered in three doses of three drachms each, every four hours at night.—April 4th: No relief whatever; is in a similar condition to yesterday. Pulse 150, very weak and compressible. No sleep.—5th: In the same condition, but worse, so weak he cannot stand, and seems in great danger of death from asthenia. Ordered tincture of hyoscyamus combined with bromide of potassium, but no relief taking place in twelve hours (he had taken four doses of the latter mixture), half a drachm of tincture of capsicum in half an ounce of water was given every three hours.—6th: Has slept since 4 A.M., and now (10.30 A.M.) is still resting. Pulse 110, full; respiration 24, easy; bowels opened freely through the night; the urine has been passed frequently and in large quantity.—8th: Continues to improve; frequent micturition; bowels open two or three times daily.—10th: Discharged well. Nearly all tremor had left. Sleeps well during both night and day. Has a firm, full pulse, and is very grateful for his rapid recovery. Diet strong slops, with a pint of double beef-tea, porter, and other nourishing food.

CASE 2.—Robert C——, aged thirty-six, admitted June 23rd, 1878. Patient is tall, dark, and well built; has been employed as drayman for seven years. Has been exposed to changes of weather, and enjoyed good health until six weeks ago, when he got wet. Pains all over body followed. Has been accustomed to take large draughts of beer, especially when heated, also at other times, more so lately. Four days before admittance called in a doctor, who found him suffering from delirium tremens, and ordered his removal here. On admission patient had marked delirium tremens, with hallucinations (driving horses, &c.) Breathing natural. Pulse 130, soft compressible. Answers questions in a jerking, tremulous way, not very distinctly. Ten grains of bromide of potassium ordered every four hours.—June 24th: Worse; is constantly moving about, although put to bed several times. No sleep since admittance. Pulse 140, very compressible; skin clammy; bowels have not acted yet. Has a dry cough. Condition one of danger. A mixture of tincture of capsicum with brandy and egg was given every four hours. After taking first dose he fell into a calm sleep, and remained in that condition until afternoon.—25th: His cough is worse; also short breathing and rusty sputa attracted attention, and on examination he was found to have crepitation over whole of right lung. Respiration 45; pulse 140. (Pneumonia.) Passed much urine, and bowels have twice been opened during the evening. Skin warm, freely perspiring. Delirium abated. Transfer in the afternoon from the cells to general wards.—26th: Bronchial breathing and bronchophony over whole of right lung, and increased tactile vibration.—27th: Is worse. Pulse 140; respiration 50. Delirium again returning. Both urine and motions have passed freely daily. Skin very hot and perspiring.—28th: Is violently delirious, although quiet when spoken to. Had an attendant all last night, and to-day was obliged to be again removed to a special ward. Life despaired of. Pulse 120; respiration 45. His capsicum mixture (which had been taken regularly) was now halved, and taken every six hours.—29th: Delirium subsided. Patient feels comfortable, and has much improved. Crepitation in lower half of right chest, rest of chest same as on 25th. Pulse full, 110. Takes his food and sleeps well. Alvine and urinary secretions continue free.—30th: Improvement continues. Respiration 36; pulse 100.—July 4th: His right chest has gradually resolved itself into a healthy condition, no abnormal sounds being heard. Is rapidly convalescing. Pulse 85; respiration 20. The diet has been nourishing; slops in a concentrated form, with two pints of ale (which latter was changed on the 28th for porter). Small doses of spirit of nitrous ether and carbonate of ammonia were combined with the mixture during the pneumonia.

ON THE SURGICAL TREATMENT OF ANASARCA.

BY H. A. WICKERS, M.R.C.S., L.R.C.P. LOND.,
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THE treatment of anasarca, whether cardiac or renal in its origin, after ordinary therapeutic measures, such as diuretics, purgatives, &c., have failed, is, in many instances, very unsatisfactory. If the patient be let alone he rapidly gets waterlogged and dies; incisions or punctures nearly always lead to sloughing, while other plans of treatment have proved scarcely less unsuccessful.

The following method has been in use at Charing-cross Hospital for some months; it has been found to increase the patient's comfort considerably, while in no instance has it been followed by ulceration, sloughing, or cutaneous inflammation; it appears, indeed, to substitute a perfectly safe means of getting rid of the fluid for those which have hitherto been attended by much risk.

The legs having been well oiled, and a macintosh sheet placed under them, about twenty or thirty punctures are rapidly made in their sides with a stout straight needle or hare-lip pin, care being taken that the needle is passed deeply into the subcutaneous cellular tissue. Some sponges which have been well wrung out in a solution of salicylic acid are now placed against the punctures, so as to absorb the dropsical fluid as it transudes; these sponges as they become saturated are squeezed out, and again passed through a solution of salicylic acid before being replaced against the patient's skin. In this manner renewals may be required every two or three hours, and several pints of fluid may be drained away during the first twenty-four hours, the whole process being possibly completed in four or five days, at the end of which time the punctures are usually healed.

By the use of salicylic acid in the manner described, decomposition of the transuded fluid is obviated, the sponges are kept free from fetor, the skin is not irritated, and cutaneous inflammations of a low type, with their attendant evils, are entirely prevented.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

MIDDLESEX HOSPITAL.

A SERIES OF CASES OF FRACTURE OF THE SKULL.

(Under the care of Mr. HULKE.)

THE two following cases, like that reported at p. 50, show the supervention of high temperature on fracture of the skull, unassociated with any appreciable signs of inflammation.

CASE 2. *Fracture of temple and anterior fossa of base of skull; great elevation of temperature.*—At 8.55 A.M. on April 7th, 1875, a pianoforte-maker was admitted into Broderipp ward insensible, cold, and nearly pulseless; his pupils were contracted, and his face much bruised and grazed. No fracture or bruise of the head could be felt. An hour later his breathing was laboured, his cheeks sinking and puffing out during inspiration and expiration. His left forearm was rigidly flexed. He moaned and ground his teeth, and was convulsed. On the 8th he was unconscious, often moaning; limbs rigid. On the 9th the breathing was shallow; coarse râles all through chest. Temperature 104°. Later in the day it reached 105°. He died at 10 P.M.

Necropsy.—Blood was extravasated on and into the right temporal muscle. A fissure started from the temple, and crossed the orbital plate of the frontal bone into the ethmoid, the cells of which, together with the apex of the orbit, were filled with extravasated blood. There was a thin film of blood-clot under the dura mater along the line of the crack, and a very extensive clot on the lateral surface of the right cerebral hemisphere, with much bruising of brain there.

CASE 3. *Fracture of skull; death; extensive hæmorrhage between the dura mater and bones; very high temperature.*—A large, heavy brewer, aged twenty-eight, was admitted into the hospital at 4 A.M. on Nov. 24th, 1877. He was said to have gone home drunk about three hours before, to have gone to sleep in a loft, and about two and a half hours later to have risen and fallen from the loft on to a floor paved with pebbles, a depth of fourteen feet. When admitted, he was quite unconscious; pulse 60, respiration 30 per minute. The right ear was torn at its insertion, and the scalp over this was grazed, but no fracture could be felt. At 10.15 A.M. the breathing was laboured; pupils unequal, the right being dilated; conjunctiva of right eye red; pulse 100. At 11 he voided urine into the bed. At 2 P.M. the pulse was 100, respiration 36, temperature 105·4°. At 2.15 the catheter was passed; urine acid, sp. gr. 1025, and contained a trace of albumen. At 3.15 the pulse was 100, respiration 32, temperature 105·8°. At 3.30 he died.

Necropsy.—A fracture was found starting from the right parietal bone, crossing the squamous portion of the temporal and the sphenoid, and ending in the sphenoidal fissure. One of the large branches of the middle meningeal artery had been opened, and a clot of the size of a half orange was found between the dura mater and bones. The convolutions of the under-surface of the left hemisphere bounding the Sylvian fissure were bruised.

ST. LEONARD'S HOSPITAL, SUDBURY, SUFFOLK.

CASES OF CHOREA.

FOR the following notes we are indebted to Dr. J. Sinclair Holden.

CASE 1. *Chorea complicated with rheumatic fever and spinal irritation; recovery.*—G. H——, a delicate-looking lymphatic boy, aged eleven years, was admitted with the following history and symptoms:—Two weeks before admission he was taken ill with rheumatic fever, and during the acute course of the disease chorea commenced. Becoming very restless and violent, the boy was sent into the hospital. The symptoms on admission were rheumatic swelling and pain in both wrist-joints; slight systolic bruit; temperature 103·5°. The choreic movements were violent and erratic over the whole body, except the inflamed wrist-joints, which he kept quiet. The head, eyes, and mouth, particularly, were in incessant motion. In addition to the ordinary choreic movements, there were frequent paroxysms of muscular rigidity along the course of the spine, quite tetaniform in character, even to distinct opisthotonos. There was no true trismus, yet a stiffness about the mouth delayed his opening it, and when open it closed with a snap; articulation was most difficult, but he swallowed with ease; dysuria also existed. The treatment for the first few days was salicin and bromide of potassium. On the fourth day he had copious perspirations, followed by a miliary eruption; the wrist-joints were better; temperature 100°; but there was no improvement in the choreic movements or rigidity of back. He was now placed under chloral, and its influence maintained more or less for four days, twelve grains three times a day being sufficient. He slept quietly without movements, taking liquid food and stimulants freely at regular intervals when partially awake. The result of the chloral treatment was a marked improvement in the choreic, but very little in the tetaniform symptoms. These slowly and gradually subsided under arsenic treatment and nourishing diet. He was seven weeks in hospital, and though free of the chorea when he left, there was still some stiffness in the muscles of the back and neck, which was not rheumatic.

CASE 2. *Severe chorea treated by chloral hydrate and arsenic; cure.*—A girl of sixteen, tall and robust-looking for her age, was admitted with chorea of three months' standing, and which had originated in a fright. Her body, arms, and legs were covered with bruises from falls she had unfortunately experienced, owing to the violence of the jactitations and the want of care or restraint at her home. Treatment of various kinds had been tried, but failed to subdue the violence of the attack. On admission she was banked up between two beds (being jerked out of an ordinary bed in a few minutes), and placed under the influence of chloral. Before the effect of the first dose passed off, a smaller one was given, so as to ensure ten or twelve hours of sleep, as recommended by Dr. Robert Bridges. This was maintained for four days, with the result of completely breaking the severity of the attack, which then assumed the quieter form. She remained a month longer in hospital, gradually improving under arsenic treatment, and then was sent to the Felixstowe home, where she completely recovered.

CASE 3. *Chorea; ether spray to spine; recovery.*—A girl of nineteen had had several previous attacks. The left arm and leg constantly twisted and jerked, but the case was not violent enough for chloral. The usual tonics were tried, and produced no effect. She then had the ether spray applied along the spine, the skin being frozen at intervals of three inches. This was done every morning for five or six minutes. She began to improve after the first application, and in ten days was able to leave the hospital, cured, and take a situation as a servant.

HÔPITAL NECKER, PARIS.

RUPTURE OF AN HYDATID CYST INTO PERITONEUM; SECONDARY ASCITES; RECOVERY.

(Under the care of Dr. POTAIN.)

THE rarity of such an accident as the rupture of an hydatid cyst into the peritoneum, and the absence of any serious consequences, render the following case specially interesting.

On May 24th, 1877, Jean P——, aged thirty, was admitted into St. Luc ward. His family history was good, and he had himself enjoyed good health till the year 1870, when he had an attack of bronchitis. Four years later he suffered from pneumonia and pleurisy, from both of which he recovered, there being no trace of these affections at the time of his admission. His health was excellent, and the only symptom from which he suffered was a little shortness of breath. Eight months before entering the hospital, he fell off a horse while riding, and the pommel of the saddle struck him in the epigastrium. On the following day he perceived a swelling in the right hypochondrium, which, according to Professor Guyon, who saw him at that time, did not proceed from the traumatism. This swelling extended about three fingers' breadth above and below the border of the ribs. There was no pain. The tumefaction remained stationary. Four months before his admission he began to feel pain in the abdomen, right shoulder, and back. About this time he was suddenly seized in the middle of the night, whilst labouring under a nightmare, with a violent pain in the right hypochondrium. During the paroxysm of pain the abdomen was contracted. Eight days before the date of his entry, while seated quietly, and without any kind of injury or violence, he suddenly felt a sensation of liquid running down to the lower part of the abdomen, accompanied by cessation of local pain, but he shortly experienced fresh pain in the right iliac fossa. The next day the abdomen was swollen. He had had no rigors, nor had he vomited. Two days later he suffered considerably from itching, and his skin was covered with red patches, probably urticaria. He did not notice anything strange in his stools, nor had he diarrhœa or jaundice. Had grown thinner and become paler.

On May 25th the abdomen was distended, and there was evident ascites. The hydroaeric sound of the intestines was difficult to detect, denoting consequently that the quantity of liquid in the peritoneum was considerable. There was a large swelling in the epigastrium, extending to the right and part of the left hypochondrium. The stomach was dilated. Dulness existed in the dependent portions of the abdomen, but fluctuation was not manifest. The liver measured 15 centimetres in the mammary line, and 10 centimetres in the epigastrium. It could not be discovered by palpation. The dulness of the spleen was blended with that of the left side of the chest. In the left lung dulness was found behind from the base to a little above the inferior angle of the scapula. On the right side dulness did not extend so high as on the left. Respiration was wanting on both sides, and vibrations were abolished in all parts where there was dulness. Expiration was prolonged under left clavicle, but there was no souffle or ægophony, nor was there any bulging or retraction. There was œdema of both legs. The heart was normal. The patient had a few slight pains in the abdomen below the umbilicus. He suffered also from left lumbar pain, which prevented him from lying on that side for the last ten days.

On May 26th there was pain in the left ileo-inguinal region. No fever. He had lost his strength. An oval transverse swelling could be seen filling up the epigastrium, and situated immediately above the umbilicus, behind which the liver could be felt covered by intestinal folds or stomach. The abdomen was more globular, and not flattened, as in ordinary ascites. The sensation of fluid was indistinct.

On May 28th the stomach was distended by gas, and formed a tumour; no fluctuation. Pulse 104; temperature 37·8° Cent.

On June 4th the abdomen was punctured with a fine trocar, and 4600 grammes of liquid of a bilious colour, and containing a great deal of albumen, were withdrawn; sp. gr. 1018.

On the 5th he had slept well; there was no abdominal pain; slight tympanites; had coughed a great deal and had epistaxis; he expectorated a viscid fluid of a greyish colour. The liver was not so easily distinguished at the epigastrium. A very small quantity of liquid was found in the right side of the thorax; exaggerated resonance above. Dulness was found in the inferior half of the right lung, with absence of vibrations; no souffle or ægophony. Œdema of the legs persisted; there was no albumen in urine; the heart was healthy. Evening temperature 38·4° Cent.

On the 9th the liquid had not reformed in the peritoneum; on the left side of the thorax the liquid rose three fingers' breadth above the inferior angle of the scapula; no ægophony or souffle; no vibrations; œdema of the legs and scrotum continued.

On the 18th the liver measured 18·5 cent. in the mammary line, and 12·5 cent. in the epigastrium. The quantity of liquid did not vary. The parabolic line attained the inferior angle of the scapula. The apex of the heart beat in the fifth intercostal space, 2 cent. inside of the mammary line.

On the 23rd the dulness reached up to the inferior angle of the scapula. The breathing was feeble within a range of 5 cent. of the angle of the scapula. The vibrations did not cease at the line of the liquid. No ægophony. The abdomen was normal. No difference of perimeter or in form. The respiration was of the superior costal variety, and not diaphragmatic.

On the 25th the patient left the hospital. The liver extended below the border of the ribs, and remained four centimetres above the umbilicus. The difficulty at this period was to decide whether there was a cyst of the posterior portion of the liver pushing this organ forwards; whether there was a cyst of the liver protruding into the left side of the thorax; or, lastly, whether it was simply a cyst of the pleura.

On July 1st the patient came to the hospital to be examined. The liver was in the same condition as when he left. He felt slight inconvenience in the left side, but was still able to walk a long way without much discomfort. Dulness had risen 1½ cent. No souffle or ægophony, and no thoracic vibrations. The perimeter of the thorax on a level with the nipples was—left side 43½ cent., right side 44½ cent.

On the 4th he came again to the hospital. The diaphragmatic respiration was still wanting, notwithstanding that the pleuræ and peritoneum were not inflamed.

In January, 1878, he again became an in-patient. On the left side of the thorax signs of pneumothorax were discovered, but the presence of liquid was not evident. No thoracic fluctuation.

On February 1st, after a fit of coughing, the patient threw up a plug of mucus, followed by about half a litre of liquid.

On the 16th pneumothorax persisted without any fluctuation in the thorax. He had again thrown up membranous plugs after coughing, coming from the bronchiæ. He had abundant muco-purulent expectoration of a fetid odour, and containing hydatid membranes. The fetor of the expectoration disappeared after the administration of creasoted cod-liver oil. The liver descended a great deal below the ribs. Measured 23 centimetres in the mammary line, and 20 centimetres in epigastrium. There was no distinct tumour. The swelling was regular and not globular. Sonority and breathing well marked under left arm. Dulness in different spots posteriorly. Breathing very feeble. Expiration blowing and of a tubular nature. On right side the dulness reached a little above the inferior angle of scapula, and attained beneath the right arm the horizontal nipple line. In front the dulness rose up to the level of the nipple.

At the present date the patient continues to do well.

Clinical remarks by Dr. POTAIN.—It appears certain that there was rupture of a cyst, accompanied by the subsidence of the circumscribed tumour, the liquid having fallen into the peritoneum and determined secondary ascites. If one admitted that traumatism was the cause of all the accidents, one might suppose the formation of a blood-cyst or an abscess, or the possibility of the existence of a cyst which had passed unnoticed and had become inflamed secondarily. But in the first case a collection of blood would not have remained eight months before bursting without having given rise to an abscess. There was no fever nor any rigors; consequently the probabilities in favour of an abscess were very slight. On the other hand, traumatism is about the only cause of hepatic abscess in our climates. The introduction of a purulent liquid into the peritoneum, coming from a

suppurating cyst, would have determined accidents of the gravest order. One is consequently brought to admit the rupture of a non-inflamed cyst into the peritoneum; the more so as the accident was followed by severe itching and the production of red patches on the skin resembling urticaria. The spontaneous rupture of the cyst was, moreover, less likely to determine serious accidents than that owing to a traumatic origin. The secondary ascites was due to peritonitis of quite a subacute form. The liquid contained in the peritoneum was evidently not exclusively ascitic, as biliary compounds were found in it. The rupture of the biliary vesicle is not necessarily a mortal accident; but then the history of the patient does not in any way point to such an occurrence.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

The President's Address. — Effects of Compression of the Bronchus. — Syphilitic Disease of the Basilar Artery. — Bronchial Gland Disease.—Sarcomatous Disease invading the Lung and occluding the Bronchi.—Cured Subclavian Aneurism.

THE ordinary meeting of this Society was held on the 21st inst., Mr. Jonathan Hutchinson, President, occupying the chair. The proceedings commenced by the delivery of an address by the President, who took occasion to point out how, with its enlarged field of work, the Society might in the future yet maintain the traditions of the past. The address was listened to with marked attention, and its delivery received with much applause. Then followed specimens of pulmonary disease induced by pressure on the bronchi, shown by Drs. Irvine and Douglas Powell; a specimen of disease of the basilar artery in infantile syphilis by Dr. Barlow, who also exhibited several specimens of bronchial gland enlargement, especially with a view of controverting Dr. Guéneau de Mussy's theory that the pressure of such enlarged glands upon the vagus nerve was the cause of the characteristic cough of whooping-cough.

The PRESIDENT then delivered the following

ADDRESS.

Before we proceed, gentlemen, any further with the ordinary business of this evening's meeting, I must ask permission to discharge the pleasing duty of thanking you very warmly for the honour which you have done me in electing me to this chair. No one could appreciate that honour more highly than I do, and few could feel more sincerely anxious lest the dignity of the post should sustain any diminution whilst I hold it. When I recall the names of those who have preceded me, and especially when I remember the ability and energy with which its duties have been discharged by the President who has just vacated it, I may well tremble at the prevision of my own shortcomings. Having, however, in a rash hour it may be, accepted the too flattering nomination of your Council, I can now only promise that I will do my best. It is usual, I believe, for your president, at the first meeting after his election, to deliver a short address, and I shall take leave to avail myself of this custom in order to make a few general remarks upon the past and future of our Society.

Our Society exists for the collection and record of well-investigated facts in pathology. Perhaps there is no better test of zeal for truth and zest in the pursuit of knowledge than the aptitude for forming Museums. There is none to which we may more confidently appeal in our estimate of any man, city, or nation, than the reverence for ultimate facts and the desire that those facts should be firmly based. Now, a museum is an assemblage of facts arranged for convenience of reference, in which facilities are given not only for enabling the novice to learn and the learned to refresh his memory, but for the investigator to make new examinations and confront changing opinions with the data upon which the old ones were founded. Now, in a sense, and that not a far-fetched one, the twenty-nine volumes of our Transactions may be regarded as a museum. Many specimens lose their bloom when they are put into bottles, and can by no care be so preserved as to keep their usefulness. Many materials of proof which admit of investigation at the moment, cannot be bodily "mounted" and put into a display case. For these the printed page is the proper means of record. But before they are so placed, it is obvious that there is need for tenfold care as to the absolute accuracy of every item of description and statement. Once printed, there is but little opportunity for reinvestigation or for the detection of error. This sort of security it was which I believe the founders of our Society had in contemplation when they determined to meet together and look at each other's specimens before they allowed any to be placed on record. Nothing could find its way into our volumes which had not been submitted to the criticism of a meeting, and nothing in the way of statement could be admitted at a meeting unless the communicator was able to substantiate it then and there by placing his specimen on the table.

No one who had the pleasure of attending the eloquent lectures on Surgical Pathology, delivered by Sir James Paget in the theatre of the College of Surgeons twenty-five years ago, can have forgotten a very splendid passage, in which reference was made to the value of combined work. After describing a portion of hog's intestine with cysts in it, which had been procured by Jenner, examined and described by Hunter after chemical testing by Cavendish, the lecturer concluded: "What a relic have we here. Surely never in an object so mean to common apprehensions did such rays of intellectual light converge as in these to which were addressed the frequent and inquiring observations of Jenner, the keen analysis of Cavendish, and the vast comparison and deep reflection of John Hunter. Surely never were the elements of an inductive process combined in such perfection—Jenner to observe, Cavendish to analyse, Hunter to compare and to reflect."

Now it was in the hope of securing for a vast number of fragments of pathological evidence the kind of advantages here referred to that the Pathological Society was begun. I say the same kind of advantages, and make no reference to the differences of quality. The names of those whom we revere in the past will gain no lustre by self-depreciation on our part; and we had better therefore say simply, that we tried to keep their great example before us, and to collect, observe, analyse, and reflect in the best way we could. It is no vain boast to say that round the table of our Society, from year to year, have sat the representatives in the present age of Jenner, Cavendish, and Hunter in the past, and that they have done their best. The result has been the accumulation of a museum of facts in letter-press which, for extent, for freedom from errors, for richness in illustration, is perhaps of unequalled value.

Those who can call to mind the early years of the Society will remember that many of the verbal communications made at our meetings were very brief. A member simply introduced his specimen with a few words as to its nature and bearings, and left it in the hands of the Society. It was handed round, and if no one had anything to ask or to object, the exhibitor was at liberty to record it in more detail in the Transactions. The readers of that volume had the satisfaction of knowing that whatever appeared there had, at any rate, passed the scrutiny of many well-trained eyes. If there seemed need, a committee of assistance was appointed to help the exhibitor in further examination and to confirm or otherwise his conclusions. Such was the care with which in general the facts were prepared that committees but seldom found anything to amend. Exceptions, of course, occurred —some egregious, some amusing,—but they were rare. At that time the attendance of many members was remarkably regular. The same faces met at every meeting, and amongst the most constant and zealous was the distinguished physician who has just consummated his services to the Society by two years of unsurpassed ability as our president.

The Society had continued the even tenor of its course for some years, and was fairly well satisfied with the functions which it discharged, when there arose in certain quarters a feeling of dissatisfaction at the slow rate of progress. This sentiment found its expression in the journals as well as in private, and it was remarked that the Society seemed to be content with mere pathological anatomy, and did not sufficiently put forth its energies in the higher aims of patholo-

gical synthesis and generalisation. The *Medico-Chirurgical Review* in 1858 published a very elaborate article on the first decennium of the Society's work, in which this line of argument was taken. The reviewer was, on the whole, appreciative and laudatory, but he remarked, in a tone of disappointment, that from the labours of such a Society "one would expect to find that some gigantic system of pathology would in time be raised upon a broad and substantial foundation; and being thus gradually developed, something deserving the name of a science illustrating the nature of diseases would at length rear its head." After making various suggestions for our improvement, he repeats the same lofty aspiration. "By such means, ultimately a system of pathology would be reared which would be an honour to the Society and a boon to science." The executive for the time being was far too wise to give much heed to such wordy and ambitious sentiments. It knew well that pathological systems must be allowed to grow slowly, and that he who should attempt to force a premature crop of fruit would prove in the end no true friend to progress. Perhaps, too, it had even a suspicion that the very word "system," as applied to our fragmentary pathological knowledge, was wholly out of place, or, at the best, belonging only to a far distant future. Whilst, however, in the main rejecting the temptation, it yet listened respectfully to its critics, and set about trying whether or not any modification of its processes were desirable. The result was that the tendency to exhibit isolated specimens, unless of extreme rarity, was placed under some gentle restraint, and that encouragement was given to papers which dealt with large principles. After a while, it was determined to be advisable to devote a portion of each session to the discussion of some selected topic without making it essential that new specimens should be brought forward by each speaker. Thus it was hoped to favour the expression of the results of thought and study rather than of mere ocular observation. In some slight degree it was, perhaps, a departure from the original plan of the Society, but even as such its success has fully justified it.

If from this glance at the past we turn to look to the future, the first remark that suggests itself is that the Pathological Society of London, however managed as to detail, must, without fail, be successful. The number and character of its members is a guarantee of this. But there is even in success a less and a more, and here the responsibility of your executive begins. Is it possible that any modifications in our method of work could be introduced which would exalt our success and yet further heighten our usefulness. I will ask your permission to state briefly one or two thoughts which I have been turning in my mind since I knew that through your too complimentary goodwill I was to be placed for a time in a position of special influence amongst you. First, then, it has seemed to me exceedingly desirable that we should encourage and facilitate in every possible way the presentation before us of unusual specimens of pathological anatomy. The first thought of those engaged in our operating theatres and post-mortem rooms on meeting with an illustration of morbid process which appears to them of especial and rare value, should be that of utilising it by allowing us to see it also. I do not think that we need fear to be overwhelmed with common or trivial preparations; the times are too advanced, and my fear is rather that we have developed a spirit somewhat too critical and exclusive. The chief difficulty in the way is lack of time. Pathology is long and our meetings are short. In ninety minutes only a certain and very moderate amount of speaking is possible. Now, in order that we may save our time and also secure for those who are kind enough to bring their specimens to us that they may not often incur the disappointment of not being able to show them, it has occurred to me that it would be well to organise a plan by which a certain number of preparations might be exhibited but not spoken about. A special table (or even a special room) might be allotted to such drawings and preparations as might, by the help of a large and well-written card of specification, be considered to sufficiently explain themselves. These should always be on the table half an hour before the meeting, and remain a short time afterwards. Their presence should always be announced from the chair, and they should be noticed in the journals, and briefly recorded in our reports. They would be subject to question and criticism from those present just as much as if shown in the ordinary way, and it might perhaps be well that it should be open for any member at the commencement of the next meeting to revert, if he wished, to anything shown at the former one, and ask for further information. Any member of the Morbid Growths Committee would be at liberty to claim any tumour thus shown for further inspection, and report. Thus to this class of communications almost the same kind of security from error might be given which is obtained by those that are openly discussed before us. It would be part of the duty of everyone attending our meeting to look at the specimens of special interest to himself, and see if there were any points in which he could assist their exhibitors. We should be all jointly responsible that nothing should pass through this room uninspected and unverified. I feel confident that some such plan as this would work well, would bring before us a far larger amount of material than it is now possible to deal with, and would much increase and diversify the interest of our meetings.

Amongst its collateral advantages might be mentioned that it would leave more time for the discussion of those matters which cannot be demonstrated, and also that the good example of total silence on the part of many exhibitors might probably induce the greater study of brevity and conciseness on the part of those who elect to speak. Without doubt, during the last ten years, at every hospital museum in London, numberless specimens of the greatest value have been silently added to the collections which ought first to have come before us. The special discussions on visceral syphilis and on lymphadenoma brought into this room many preparations and many beautiful drawings which we had not previously seen, and respecting which I doubt not the thought of many old members of the Society was, like my own—why was it necessary to have a special debate in order to unearth these treasures, which ought to have been brought before our ordinary meetings at the time they were obtained? Now the reason that such were not brought was probably, in most instances, a doubt as to whether the Society would find time to hear about them, and whether, if it did, there might not be many present who would listen with but reluctant patience. Under the plan at which I have hinted, those who exhibited in silence would of course be free from the slightest risk of boring anyone, and those who spoke would in many cases, perhaps after a time in most, have the satisfaction of knowing that they did so on the invitation of the meeting or of the Society's officers. Is it not possible that our published records might be made more available if from time to time the Council were to appoint a small committee to examine and report upon special subjects as illustrated in them? In this way the information they contain might be condensed and arranged, and, what is surely of great importance, the points still needing further elucidation might be prominently stated. Such committees might do good service in preparing lists of desiderata, specifying the subjects which the Society would be glad to have illustrated by specimens. Thanks, I believe, to the energy of Mr. Holmes, and to the liberality respectively of Mr. Pollock and Dr. Peacock, who bore the expense, we possess two excellent catalogues to our series of volumes. Without these the volumes would be scarcely accessible; but, valuable as these indices are, I cannot but think that reports on special subjects, being a sort of *catalogues raisonnés* with comments, would be very useful. I owe this suggestion to the *Review* from which I have quoted.

A very important part of the Society's work concerns its provincial members, of whom it has a considerable number, and all will agree that we ought by all possible means to encourage their work by facilitating the exhibition of specimens sent up to the care of our secretaries and in any other way. Several provincial capitals possess their own Pathological Society, and that of Dublin may, I believe, claim precedence of us in point of years. None other, so far as I know, publishes any permanent record of its transactions, and thus, useful as their meetings are as schools of observation and experience, an important loss occurs in respect to the ephemeral character of their work. Would it be possible in some way to affiliate the other metropolitan and provincial societies with that of London, to invite them to send to us their more valuable specimens and drawings, and to record in an appendix to our volume a list of the chief cases which had been before them? We could not probably do much more than give a list or, at best, the briefest abstracts, but with such might be inserted references to the place of publication in the weekly journals of those cases which had been noticed in detail. Such references, duly indexed in our volumes, would be of great use to those who

might search them for special subjects, and their insertion would probably act in some degree as an incentive to care and zeal on the part of our fellow-workers in other cities.

Let me mention here a statistical fact which is suggestive. During the first two years of the Society's life, with 120 members, it averaged in each session 120 contributions and reports, and in its eleventh year the number had reached 201. Now, in its twenty-ninth year, the last session, with a members' list of 601, the number of communications of all kinds was only 105. This diminution has occurred chiefly during the last decennium, the period during which a certain number of meetings have been given up to special discussions. No one will doubt that the value of our volumes has gone on increasing, but the figures which I have quoted plainly show that we have gradually effected a very important change in our policy, and that we now aim decidedly at excellence rather than at numbers. No one would wish to return to the old plan if it involved the abandonment of the new, but the question is whether the two cannot be combined, and that, too, in a manner to be mutually helpful.

Those who cannot help looking with some regret on this reduction in the activity of the Society's function in respect to the display and investigation of specimens of pathological anatomy make yet a suggestion to which I have not yet alluded. They say that, apart from the value of the Transactions and of the reports in journals, and in addition to the new principles and discoveries in pathology which the Society has been the means of publishing to the world, its meetings have had a special usefulness to those who have attended them in enabling them not only to hear but to see. The opportunity of seeing with but little trouble to oneself a dozen or twenty different specimens, the cream of the post-mortem theatres of this metropolis, is one the educational value of which is very great. Few of us, even at our own hospitals, know of a tenth of what is going on; the ward and the lecture theatre compete with the post-mortem room, and men engaged in practice find but little time for special pathology. To such the opportunities afforded by our meetings, where a large variety of specimens are produced, are inestimable.

Amongst the work which the Society has now in progress, the most important is the investigation of the subject of pyæmia, for which a Government grant of money has been obtained. This investigation is in the hands of a very able committee, whose report will soon be forthcoming. Arrangements have been made for a debate on the subject of lardaceous disease, which will probably occupy two or three meetings in March, and for the opening of which the Council has been fortunate enough to secure the services of Dr. Dickinson. We have a committee, appointed at last meeting, engaged on the subject of garget in cows and on the possible influence of milk from inflamed udders as a cause of disease. The Committee on Morbid Growths and that on Pathological Chemistry are permanent, and I cannot but think that if our members generally knew of the kind of help which these valuable committees are prepared to give, their labours would be very much increased. At our last meeting, in his concluding address, our President took occasion to commend to the special attention of the Society the subject of comparative pathology, and his recommendation is one which we ought to be zealous to keep in mind. There may be some doubt as to the usefulness of detailed schemes of work prepared by a society or a committee. It is perhaps better as a rule to simply afford facilities, and leave the details to spontaneous effort. On such a wide subject as that of comparative pathology there might, however, be no objection to our obtaining such help as could be given by a committee of those best informed on the matter which might bring before us a report as to desiderata and the best means of supplying them. It is, of course, unnecessary to state that communications as to the diseases of the lower animals are always welcome here, for many such have been presented in past years, and always well received.

I began, gentlemen, as in duty bound, with a personal matter, but I need to apologise for ending with one. On looking into our members' list I see that twenty-seven years have passed since I was elected a member, and that so early as four years after that I had the honour of being made one of the council. I was but youthful in those days, and I well remember that a most valued friend, one of the founders of this Society, told me after my election on the council, and partly as explanatory of it, that it was part of the scheme of the Society to encourage young men. When informed of my nomination as your President, I recurred to this and could not help believing that the traditions of its early life were still in force. I regard myself, therefore, as in some measure a representative of a class. I have reason to believe, also, that I owe my position here to-night in place of another who had a much better claim to the post, to the fact that I joined two years before he did. The moral of this fact to aspirants to the Society's honours is too plain to need comment. But I have other reasons for mentioning these circumstances. I wish to express the hope that the genius of this Society will always tend to encourage and reward work done early in life. It is then that the faculties for observation are brightest, and the zest for knowledge the most keen. The somewhat grim motto of this Society is *Nec mors silet*. I am aware that it refers to the material with which we deal, but, if I may be pardoned an allusion so serious, it applies also to ourselves. The tree of science is deciduous, and the ordinance which, whilst giving to the weary rest, ever brings forward a new generation free from the trammels of formed opinions and fresh for new fields of work, must ever be regarded, in respect to a branch of progressive knowledge such as that we here cultivate, as being in the main a friend.

Dr. PEARSON IRVINE showed specimens from three cases exhibiting the Effects of Compression of the Bronchus. In each instance the left bronchus was involved, the compressing cause being a thoracic aneurism. The first was from the body of a groom, who began to suffer from cough in March, 1877, and in January of the following year had to give up work and to be admitted into hospital with the signs of thoracic aneurism, whilst the left lung appeared consolidated from apex to base, weak bronchial breathing and mucous râles being audible over the dull region. Death took place from exhaustion, and there was found an aneurism of the ascending aorta immediately above the valves, the upper part encroaching on and compressing the left bronchus, whilst the lung itself was completely disorganised, being partly consolidated and smooth on section, with thickened adherent pleura covering it, and partly honeycombed by cavities, formed by the breaking down of the previously consolidated tissue. The second case was from a female aged fifty, admitted into Charing-cross Hospital in May, 1878, whose illness commenced like that of the first patient, and who, when admitted, presented dulness over left chest from apex to base, and marked amphoric breathing over that side. Exploration failed to establish presence of fluid. Death occurred from exhaustion, and at the post-mortem examination an aneurism of the aorta was found, compressing the left bronchus, which was partly ulcerated, whilst the lung showed disintegrating pneumonia similar to that in the other case, only with more advanced changes, the bronchi being extensively ulcerated. The right lung was emphysematous. The third case was that of a male fifty years old, who presented signs of thoracic aneurism on admission into hospital on September 29th, 1878, and in whom the physical signs and symptoms resembled those of the other cases, except that towards death, which took place on December 16th, he began to suffer much orthopnœa, dying finally from asphyxia. The aneurism, of large size, compressed the left bronchus; the lung changes were less extensive than in the other cases, but consisted in patches of lobular pneumonia, points of suppuration, and great hypostatic engorgement. Dr. Irvine thought that the first effect of compression of the bronchus was to produce emphysema (in two previous cases he has recorded in the Pathological Transactions the lung was very voluminous), probably from the impeded expiration from the bronchial occlusion, aided, as this would be, by cough; then, as occlusion increased, the products of bronchial secretion would accumulate, and lead to the destructive pneumonia described. Collapse also might occur from difficult entrance of air through the narrowed bronchi; this had taken place in one case probably a few days before death. The changes described had, twenty years ago, been ascribed by Sir W. Gull to compression of the vagus nerve at the root of the lung; but in one of the cases just brought forward the right vagus was more compressed than the left—the side on which the lung changes and the bronchial compression occurred.

Dr. BARLOW showed a recent specimen of a Brain from a case of Infantile Syphilis with Disease of the Basilar Artery. The child was only three months old, and had been brought to Dr. Barlow the day before its death. It exhibited marked

evidence of congenital syphilis. The specimen showed the early condition of syphilitic disease of the cerebral arteries so amply illustrated two years ago; the basilar trunk at the point of its division into the posterior cerebrals was opaque and thickened, but pervious. There was also some slight opacity of the middle cerebrals and of a small branch of the basilar. The other post-mortem evidences of congenital syphilis were characteristic disease of the skull (which Dr. Barlow hoped to bring forward on another occasion), gummata of the liver, and thickening of the capsule of the spleen. The present case was the earliest example of syphilitic disease of the brain met with by Dr. Barlow.

Dr. BARLOW also exhibited specimens of Bronchial Gland Disease, with especial reference to the morbid anatomy of Whooping-cough. About two years ago Dr. Guenean de Mussy formulated the doctrine that the characteristic cough in this affection was due to the pressure of bronchial glands upon the vagus nerve; but there was not much anatomical evidence in support of this. The first specimen was from a child who died on the eighth day of an attack of whooping-cough supervening upon double empyema, from which she was recovering. Two days before death some dulness to right of manubrium sterni suggested enlargement of bronchial glands. But only slight enlargement was found of glands just behind the apex of the lung. Another specimen was from a child, seven months old, who died from acute tuberculosis. It suffered from a peculiar panting dyspnœa, and a short, dry, ineffectual cough, not paroxysmal, with no whoop, and not accompanied by vomiting. There was slight dulness to the right of the manubrium. Post-mortem: General tuberculosis, the bronchial glands being enlarged and the seat of tubercle or caseation. On the right side one gland, over which the vagus nerve was stretched and adherent, was greatly enlarged. There was tubercle in the lungs, and in the right lung a cavity formed by the rapid breaking down of caseous consolidation. Here was a case where the vagus nerve was implicated, but where the characteristic symptom of whooping-cough was absent. The case also supported Dr. Irvine in disproving another theoretical piece of pathology—namely, the occurrence of destructive pneumonia from pressure on the vagus; the cavity met with being due to suppuration connected with bronchi, but due to breaking down of a caseous product *en masse*. Another specimen (also from a case of acute tuberculosis in an infant) showed enlargement and caseation of the bronchial gland at the tracheal bifurcation; the gland was partly ulcerated, and the bronchus adjacent to it was ulcerated, the ulceration commencing in the bronchial mucous membrane, and showing tubercular granulations at the margin. Two years ago Dr. Gee contributed a paper to the St. Bartholomew's Hospital Reports, in which he described cases of enlargement of this gland, leading to ulceration of the left bronchus, gangrene of the lung, and pericarditis, due to extension of inflammation, from the lung overlapping the pericardium. Dr. Barlow had seen this association in two other cases, where evidently the lung changes were due to the entrance of products of the broken-down gland by ulceration of the bronchus. The present case showed that such ulceration might commence simultaneously from both the gland and the bronchial mucous membrane.—Dr. BURNEY YEO confirmed Dr. Barlow's statement, in opposition to the view of G. de Mussy, that there was a direct relationship between the cough of pertussis and enlargement of the bronchial glands. The cough met with in cases of such enlargement was unlike that of whooping-cough, and often in the latter disease no post-mortem evidence of enlarged glands was obtained; although, *à priori*, it might be expected that the bronchial glands should suffer secondarily to the specific affection. Dr. Barlow's specimens were of great interest in elucidating this question.

Dr. DOUGLAS POWELL showed a specimen of Sarcomatous Disease of the Lung invading the Bronchi, in illustration of the subject just raised by Dr. Irvine. The patient, a man forty-three years of age, suffered from cough and hæmoptysis for two weeks in January, 1878, and again in April, associated with jaundice and vomiting, which continued more or less for two months. In August he came under Dr. Powell's care at the Brompton Hospital, having previously been under the charge of Dr. Symes Thompson; and on December 3rd he was admitted into the Middlesex Hospital. The case, which had been viewed as one of malignant disease of the mediastinum invading the lung, was marked towards its close by a curious change in the physical signs of the upper part of the affected lung, apparently due to the supervention of compression of the bronchus going to that part of the lung. Thus, on December 5th, above the nipple level, there was abrupt transition from the absolute dulness over lower half of lung to extreme hyper-resonance, the breath-sound being markedly exaggerated over this part; but on the 11th the resonance was much less marked, and the respiratory murmur almost suppressed. Three days later the patient died. The post-mortem showed a large, soft, and evidently rapidly growing lympho-sarcomatous tumour in the posterior mediastinum, invading the parietal pericardium, and encroaching upon the lower lobe of the right lung, causing complete obliteration of its main bronchus, and replacing the lung-substance entirely for some distance from the root. The remainder of the lower lobe was consolidated and of a greyish colour, whilst numerous cavities containing pus, and in free communication with the dilated and ulcerated bronchi beyond the obstruction, riddled the posterior part. The bronchus to the upper lobe was not invaded by the growth, but compressed and extremely flattened, so that a small probe could hardly be passed through it. The parenchyma of this lobe was in a condition of extreme œdema, amounting almost to hepatisation; the air-cells being distended with exudation and a large number of cellular products. The small bronchial tubes beyond the constriction were slightly but obviously dilated, and were filled with mucus. There was further some amount of interlobular thickening. The vagus nerve was imbedded in the tumour, and the pulmonary bloodvessels were less compressed or invaded than the bronchi. Secondary nodules occurred in the liver, kidneys, and retroperitoneal glands. The case showed in the upper lobe of the lung the effect of recent compression of the bronchus; and the œdematous condition of the lobe might be due to inspiration acting much as a cupping glass, the entrance of air being so much impeded.—Dr. EWART thought Dr. Powell's explanation of the mode of production of the œdema would account for the occurrence of œdema in the upper lobe of the lung towards the close of life in chronic pulmonary disease.

Mr. SYDNEY JONES showed a specimen of Aneurism of the Subclavian Artery, spontaneously cured. The case had been recorded by the late Mr. Poland, as one of cure of aneurism by compression. The history of the case extended over eighteen years. In 1859 the patient had a popliteal aneurism on the left side, which became consolidated after the occurrence of blocking in the tibial arteries. In 1861, a popliteal aneurism formed on the right side, and was cured by compression of the femoral. In 1866, he came under Mr. Jones's care at St. Thomas's Hospital, with evidence of subclavian aneurism. Mr. Jones enjoined rest, and in 1867 Mr. Hutchinson saw the patient and also prescribed rest. In 1868 the aneurism became solid, the consolidation being preceded by an attack of sickness and vertigo; the patient dying in 1877 from aortic aneurism. Examination showed extensive atheroma of aorta and large vessels, and complete obliteration of the second and third parts of the subclavian artery by old coagulum. It was an instance of spontaneous cure, and not of cure by compression. Mr. Jones added that in 1867 a leather cap was adapted over the swelling, and fixed under the axilla.

EPIDEMIOLOGICAL SOCIETY.

Etiology of Autumnal Diarrhœa.

AT the meeting on January 1st, 1879, Surgeon-General John Murray, M.D., President, in the chair, Dr. WILLIAM JOHNSTON, of Leicester, read a paper on "The Etiology of Autumnal Diarrhœa." Dr. Johnston began by pointing out that the mortality for a number of years from this disease had considerably exceeded any other zymotic malady, but that the disease arises from causes pre-eminently under control. From statistics taken at Leicester it was found that, although the deaths were confined almost entirely to children, the majority of those attacked were adults; also, that in many cases several persons, adults and children, suffered in one house, thus indicating a common cause. A microscopic examination of the discharges from the bowels and stomachs both of adults and children disclosed the presence in large numbers of bacteria (*Monas crepusculum* and *Bacterium termo*). From this he argued that the disease depended on

putrefactive changes induced in the bowel contents through the agency of these minute organisms. In treating of the theories of causation, he stated that those usually accepted—viz., artificial feeding, impure water, and maternal neglect—were not supported by the statistics of Oldham, Halifax, and other large towns, where the mortality from this disease was small, and where these conditions were certainly not wanting. In towns engaged in similar branches of industry and employing the same proportion of female operatives, the death-rates from this disease were subject to very considerable variations. Atmospheric conditions appear to act only as *excitants* of the disease. A careful tabulation of the meteorological conditions and diarrhœa mortality of each year since 1866 led to the conclusion that the prevalence of the disease appeared to be governed by temperature, humidity, and rainfall. The combination of these most favourable for the disease was high temperature, low degree of humidity, and scarcity of rain—these conditions of weather being favourable to rapid aqueous evaporation. Through solar influence the subsoil of towns at sewer depths is found to reach putrefactive temperature by the end of June or the beginning of July; and in other localities where the sewers, through insufficient fall or defective construction, are liable to retain excretal matters, these matters are then found to be in a state of active putrefaction. The moist air in ill-ventilated and non-cleansing sewers, where the temperature of the latter is above 57° F., contains bacteria of the genera Micrococcus and Bacterium termo, the numbers present being in direct ratio to the increase of temperature from 57° to 69·5°. The air of an insufficiently ventilated system of sewers undergoes a daily range of temperature varying from 3° to 12° F. The greatest daily fluctuations take place in the air of main sewers; in these the lowest temperatures occur between 3 and 4 A.M., and the highest between 5 and 6 P.M. The temperature in the air of the sewers of a manufacturing town is never at any given moment uniform throughout the system, for, owing to the frequent receipts of heated water from factories and other sources, the temperature in the low-lying main culverts is found throughout the day to be from 5° to 9° F. higher than that in the neighbouring sewers radiating from such culverts. An exactly opposite relationship with respect to these sewer temperatures is found to exist during the greater part of the night, for then the temperature of the air in the main culverts is lower than in the tributary sewer. Owing to such variation, ascending aerial currents are established during the day, irrespective of the low specific gravities of some of the component gases, and if, from defective construction or other cause, any section of the main culverts retains excretal matters, the specific contaminations which such matters contain are thus carried into the remotest branch sewers, though these latter may extend to considerable distances and occupy much higher levels. Stagnation and deposit occurring in a main sewer soon impart a common character to the air of all its confluents. The air of badly sewered localities always yields during the summer months fungoid elements ranging in character from micrococcus to mycelial filaments. Dr. Johnston considered that diarrhœa, as it affected both adults and infants during the summer months, owed its origin in the great majority of instances to the introduction of these living organisms into the system by means of air or food, and that the disease depended upon putrefactive changes in the bowel contents, which were correlative to the development and multiplication of the microscopic organisms. Charts were exhibited indicating the distribution of the diarrhœal deaths in Leicester during the epidemic of last summer. From these it was seen that there was a special incidence of the disease on those districts of the town where the sewers were found to contain deposit. Dr. Johnston observed that those towns which possess sites admitting a considerable fall of their sewers, have a very low death-rate from the disease under consideration; but that for those towns possessing sites which do not admit of their sewers having a good fall, the opposite is true, and this irrespective of their industries. The medium at present used to confine sewer air—viz., water—fails to prevent the passage of bacteria through the traps. If the sewers contain deposit, the water in the traps of the drains soon affords evidence of the presence of bacteria, derived from the putrefaction of the deposit; from this water they pass readily into the air. Contamination of air from putrefying animal refuse is thus brought about with as great certainty, though in a less degree, as if excrement were stored upon the surface, and in close proximity to human habitations.

In the discussion which followed the reading of the paper Dr. Buchanan, Dr. Turner (Portsmouth), Dr. Parsons (Goole), Inspector-General Lawson, Dr. C. J. Hare, Dr. Thorne Thorne, Mr. Netten Radcliffe, and the President, took part.

Analytical Records.

PURE THYMOL SOAP.

(FERRIS & CO., BRISTOL.)

THE value of thymol as an antiseptic at once powerful, innocuous, and agreeable, is now well recognised. Its introduction into soap is a decided advantage, and Messrs. Ferris must be commended for the very excellent and useful article they have produced. It will be particularly valuable in the sick room and the nursery.

IMPROVED EXTRACT OF MALT, CONSISTING OF THE SOLUBLE CONSTITUENTS OF THE BEST CANADA BARLEY MEAL.

(THE TROMMER EXTRACT OF MALT COMPANY, FREMONT, OHIO.)

We find that this extract converts starch into glucose and dextrine rapidly and in large quantity. In flavour it is excellent, and we have therefore no hesitation in praising it highly. Malt extract seems to be steadily increasing in favour for diseases involving impaired nutrition; but its preparation requires great care, as it is easy, in making it, to destroy its activity as a starch-converter, and so render it nearly useless. The malt extract is supplied in various forms—for example, the simple, for nutrient purposes, with cod-liver oil (which it disguises pleasantly), with the hypophosphites, and with iron.

PEARS'S TRANSPARENT SOAP TABLETS, PERFUMED WITH OTTO OF ROSES.

(A. & F. PEARS, 91, GREAT RUSSELL-STREET.)

Wonderfully pure soap, very highly perfumed. Though a toilet luxury, and as such of course somewhat expensive, it is nevertheless such a real luxury that it cannot fail to be popular.

HEALTH OF LARGE ENGLISH TOWNS IN THE THIRD WEEK OF 1879.

DURING the week ending last Saturday, 5541 births and 3979 deaths were registered in twenty of the largest English towns. Both births and deaths again considerably exceeded the average weekly numbers during 1878; the deaths, moreover, showed an increase of 151 upon the declining numbers in the four preceding weeks. The annual death-rate in the twenty towns, which in the four previous weeks had declined from 32·3 to 27·1 per 1000, was last week equal to 28·1. The death-rate in the first three weeks of this year has averaged 28·1 per 1000, and has considerably exceeded that which prevailed in the corresponding period of any year since 1875. In the twenty towns the death-rate last week ranged from 19·8 and 20·0 in Brighton and Sunderland, to 35·5 and 36·4 in Norwich and Liverpool. The high death-rate in Liverpool was in great measure due to the exceptional fatality of diseases of the respiratory organs and phthisis; these diseases caused in that borough an annual death-rate of 17·2, or very nearly half the death-rate from all causes. The deaths referred to the seven principal zymotic diseases were 397, a lower number than in any week since the early part of 1877; these included 127 from scarlet fever, 121 from whooping-cough, and 50 from fever, principally enteric. The fatal cases of scarlet fever were less numerous than those in the previous week, but showed a marked excess in Birmingham, Liverpool, Salford, Bradford, Oldham, and Sheffield. Diphtheria caused four deaths in Hull, and three in Liverpool. Whooping-cough was most fatal in Sheffield. The annual zymotic death-rate averaged 2·8 in the twenty towns; it ranged from 0·5 in Brighton, and 0·7 both in Plymouth and Wolverhampton, to 4·6 and 6·2 in Sheffield and Salford.

THE LANCET.

LONDON: SATURDAY, JANUARY 25, 1879.

THERE is a wide-spread and firmly-rooted belief that insanity is increasing—which is to say that there are more known *lunatics* now than there were years ago in proportion to the population. The practised statistician will not need to be reminded that this may be the fact, and, notwithstanding the figures and percentages upon which the conclusion rests, it may be an error to assume that lunacy is on the increase. Dr. MORTIMER-GRANVILLE, in a recent work on the subject, discussing the statistics of the last forty-five years, while expressing no formal opinion on the general question, suggests that for the phrase "Insanity is on the increase" we should substitute "Insanity shows a tendency to *accumulate*." Persons are now considered insane, and locked up in lunatic asylums, who would have been deemed fit to remain at large years ago. The Poor-law system, as developed and applied, tends to crowd asylums with paupers who would have been left in the workhouses or turned adrift in less generous times. And over and above these causes, which help to swell the proportion of the population classed as insane and placed under treatment, there are the important facts that patients live longer in asylums, and more of those who enter those institutions remain as permanent inmates, instead of being discharged by recovery, improvement, or death. It must be evident that the conditions described will affect the result, and therefore should influence the judgment.

There has been a notable improvement in the results of treatment during the last thirty years and upwards. Of 20,970 discharges from asylums in the course of the period named—that is, from 1841 to 1845,—9327 have been discharged by recovery, and 11,643 by death—that is, 44·48 per cent. of these discharges have been cures, and 55·52 per cent. cases in which the patients have died. The progress made is, however, reassuring; whereas in the period 1841–45 the cures were only 38·12, and the deaths no less than 61·88; of the total discharges in 1871–75, the recoveries were 50·94 per cent., and the deaths reduced to 49·06. The rapidity of the cures effected also comes out in the fact that while in 1841–45 the recoveries within six months of admission were only 46·29 to the total of recoveries, against 29·25 deaths at the same period of residence, in 1871–75 there were respectively 54·48 per cent. of recoveries, against 31·51 per cent. of deaths. The conditions of age have also mended. In 1840 the average age of admissions was 36·5; of patients discharged recovered, 37·0; of those who died, 44·5. In 1875, the ages were, on admission, 42·8; on recovery, 40·4; at death, 51·6. The length of residence in asylums has increased as follows: in 1841–45, 29·80 of the patients who died had lived in the asylum more than three years; in 1866–75 the proportion of such cases had risen to 35·44! Taking these computations, it will be easy to see that there is solid evidence to support the hypothesis that accumulation may account for much, if not the whole, of the apparent increase.

We are increasingly comprehensive in our recognition of mental disorders, as *insanity*, and the doctrine that lunatics must needs be placed in confinement, or, as the term goes, "under treatment," has been preached with vigour and success. We must not turn round and scare the country with the huge aggregate of cases of lunacy our policy has created. It is doubtless wise and advantageous that mental disease should receive prompt treatment, but the fact that this is beginning to be generally recognised does not justify the tacit admission of grounds for anxiety which, as a matter of fact, do not exist. There is not, we think, sufficient proof—but, on the contrary, much evidence in contradiction—of the allegation that insanity increases. Misconception arises from the failure to distinguish, first, between *cases* and *patients*, the same individual being returned as a lunatic more than once. This consideration, covering "readmissions" and "transfers," necessitates the discounting of any "total number under treatment," if the period taken be a long one, by over 20 per cent. There is a second source of fallacy in the non-recognition of the great difference which exists between *occurring* and "certified" cases. The former description is synonymous with "recent" cases discounted by deducting the "relapsed" cases readmitted, a class bearing no inconsiderable proportion to the total of admission. For example, the relapses in 33,308 cases, extending over forty-three years, numbered 2615—that is, over 7 per cent. The proportion per cent. of relapsed cases readmitted on recoveries was 26 per cent. The "occurring," or *new*, cases of insanity cannot therefore equal the gross number of "recent" cases admitted into asylums, and these, it is well known, bear a small proportion to the chronic cases received under treatment. The Legislature, reflecting the mature opinion of the country, has taken measures to secure the prompt incarceration of pauper lunatics in asylums, and the community are doing their utmost to promote the placing of private patients in suitable institutions. These objects are doubtless worthy of considerable enterprise, although it must be obvious the policy of gathering *all* cases of mental disease into asylums opens the way for abuses, not exclusively of the class to which public attention is most keenly alive, but economic as well as administrative. Meanwhile it must not be overlooked that in carrying out the general intention which underlies the lunacy law we are creating a bugbear which may, not only scare, but mislead, public opinion.

It is expedient to direct attention to this subject at the present moment, because the cry that lunacy is increasing has again been raised, and the Commissioners have of late years rather fostered than appeased the alarm such a statement is calculated to create. We are at a loss to discover any valid reason for the change of opinion which has come over the Board during the last decade. We trust the mania for asylum-building which has begun to possess boards of magistracy generally—and which fails any longer to find an adequate argument in vindication of the "extension" policy on the plea of philanthropy—has not affected the Commissioners! It is at least remarkable that the change which seems to have passed over the spirit that pervades Whitehall dates from the precise period when a popular impression that lunacy is increasing became indis-

pensable to the continuance of that liberality which permits the practice of building gigantic and costly establishments to be carried to the bitter end. It is a simple duty to protest against the perpetuation of this belief unless it can be based on better grounds than any we have been able to discover. Whatever reforms may be contemplated in the session upon which we are entering will, it may be hoped, tend to economy rather than additional expenditure. Improvements are necessary. We have already pointed out the form which, in our judgment, these should assume. The changes recommended in these columns would not involve any considerable increase in the present annual charges for the care and treatment of the insane. In any event, whatever may be done must be enforced with better arguments than the assumption that lunacy is increasing. Of that assertion there is no sufficient proof.

THE extreme complexity of composition presented by the albuminous compounds, and the general similarity of their behaviour with reagents, render them amongst the most difficult objects to differentiate and recognise with which the chemist has to deal; whilst, on the other hand, their prime importance as materials for food, and the large proportion of the body they constitute, have compelled physiologists to direct increasing attention to their properties, and to study with the utmost care the changes they undergo in the processes of digestion in order that some light might be thrown upon the acts of nutrition. That some change must be effected in the composition of the ordinary forms of albumen used as food, follows from the fact that they belong to the colloidal group of substances, and are therefore ill adapted to traverse animal membranes. This change is now generally admitted to consist of a conversion into a substance termed peptone, which is said to be a crystalloid, and to be non-precipitable by acids. An inquiry recently undertaken by ADAMKIEWICZ has led him to throw some doubt on the first part of this statement, and to the further conclusion that there are two stages in the formation of peptone, for the product of the first of which he proposes that the term peptone should be retained; whilst the substance ordinarily called peptone he considers to be a product of putrefactive fermentation. In order to obtain true peptone, ADAMKIEWICZ subjects fibrin to the action of hydrochloric acid and pepsin; when it has undergone digestion, the acid is to be almost but not quite neutralised with sodium carbonate; the fluid is then boiled, filtered, and precipitated with absolute alcohol, which is allowed to remain long in contact with the precipitate separated by filtration. It is purified from all trace of albumen by repeating the solution, precipitation, and filtration. The resulting substance, which he believes to be true peptone, is soluble in water, its concentrated solution stiffens in the cold like gelatine, and if exposed to the heat when solid fluidifies like fat. Cold water and all the reagents that precipitate unchanged albumen, also precipitate the new substance, but only at a low temperature; and the precipitates have, in each instance, the peculiarity of redissolving on the application of heat. The statement so often made that no precipitate occurs with acids is due to the fact that too large a quantity has been incautiously added. The contrast between the properties of unaltered albumen and of digested albumen is very marked, especially in the circumstances that ordinary albumen is transparent at low temperatures, whilst it coagulates by heat; that the concentration and precipitability of its solution stand in no relation to each other; and that the precipitates are coarse, flocculent, and uncommonly resistant, dissolving only in concentrated acids and alkalies. Another point in which ordinary albumen differs from digested albumen is that it contains a smaller amount of salts, fibrin as pure as it can be obtained containing as much as 1·75 per cent. of ash, whilst digested fibrin contains only about 0·88 per cent. Such is the product of the first stage of digestion; but if this be now subjected to the protracted action of pepsin, as in the experiments of HERTH, or if it be allowed to dialyse for a considerable period, a substance is obtained which can no longer be precipitated from its most concentrated solution. This is ordinary peptone. No evidence has been brought forward that the substance ordinarily called peptone is of value as a food, whilst little stress can be laid on the process of dialysis, since KOSSEL has shown that in the act of dialysis a substance may change in chemical composition. Again, it is well known that the continuation of the digestive process causes peptone easily to decompose into leucin and tyrosin, which are not met with as results of true gastric digestion, but are really products of putrefactive decomposition. Finally, as HENNINGER has shown, ordinary peptone, the non-precipitable substance, is developed from albumen by a process of hydration which is a fermentative and putrefactive process. Ordinary peptone, it appears, is not so diffusible as is generally stated, nor indeed is true peptone very diffusible. True peptone, however, promotes metabolism of tissue within twenty-four hours, whilst ordinary peptone requires forty-eight hours. This point ADAMKIEWICZ has in a previous work shown to occur. In his present essay he endeavours to show the same fact by proceeding on the principle that the less capable a substance is of traversing the intestinal wall and undergoing absorption, the longer will it remain in the intestine after ingestion, and the longer it remains there the more thoroughly will it undergo the disintegrating influences which are in operation in the intestines. Now the chief disintegrating agent is the pancreatic juice, and, amongst the products of the action of this juice on albumen are indol and indican, which are absorbed in proportion to the quantity formed, and are again excreted in the urine. The quantity of indican in the urine, then, may be taken as a measure of the duration of the retention of albuminous compounds in the intestine, and the results of his experiments strongly support the view that whilst the ingestion of unaltered albumen materially augments the quantity of indican excreted, the administration as food of true peptone causes no increase; hence he concludes peptonised albumen is rapidly absorbed from the intestine, whilst ordinary albumen is absorbed with difficulty. But peptone is indiffusible, hence it follows that the diffusibility and the absorbability of a substance through the intestinal walls stand in no definite relation to each other, and as his peptone did not produce any increase in the indican, he concludes that this is rapidly absorbed. Similar conclusions were derived from experiments in which the total nitrogen excreted by the urine was estimated. ADAMKIEWICZ is inclined to think that the difference between albumen and

peptone is of a physical nature, and dependent upon hydration and dehydration, since by conditions favouring these processes they are mutually convertible into each other; ordinary albumen in the presence of a little water, at a temperature of 120° to 130° C., which is insufficient to cause decomposition, becomes changed into peptone, whilst the only peculiarity distinguishing peptone from albumen—viz., its solubility in warm water—is lost if the dry substance is exposed to a temperature of 212° F.

CORPULENCE or obesity is, there can be no doubt, one of the most widely spread of the minor troubles to which the human race is subject, and as such worthy of the most careful attention on the part of hygienists and therapeutists. Until within a very few years it was universally taught that the great sources of fat within the human body were the fatty and hydro-carbonaceous elements of the food; and, although it was admitted that the albuminates might, under certain circumstances, give rise to fat, this was put forward rather as a doubtful hypothesis than an admitted fact. The recent labours of physiologists have cast no little doubt upon the old views, and the last writer on the subject of corpulence (IMMERMANN, who contributes an article to ZIEMSSEN'S "Encyclopædia") throws over the old views entirely, and adheres absolutely to the doctrines put forward by modern physiologists. It is now held that fat is formed principally from the albuminous elements of the food, just as the fat in fatty degeneration of the tissues is derived from the organised albumen of those tissues. The albuminates eaten with the food are used in part for the nutrition of the albuminous tissues, and the surplus which is not so used undergoes continued processes of metamorphosis and oxidation, and appear among the excretions in the form of urea, uric acid, carbonic acid, and water. If, however, the albumen taken in with the food be in excess of the requirements, or if obstacles stand in the way of its proper oxidation within the body, then a great part is deposited in the form of fat, instead of being burnt up into carbonic acid and water. It is hardly necessary for us to repeat, in this place, the various arguments, physiological and chemical, which have been put forward in support of this view. It must be sufficient to state that they appear tolerably conclusive, and place the albumen source of fat upon a basis which seems to us to be fairly secure.

The value of the other varieties of food in determining obesity depends, it would seem, mainly on their doing away with the necessity of the ultimate oxidation of the non-nitrogenous products of the metamorphosis of the albuminates, and so enabling them to take the form of fat and settle in the tissues, instead of making their escape by the lungs in a more volatile state of being. The formation of fat from albuminates would appear to be greatly favoured by this incomplete combustion, and when fats and hydrocarbons are taken with the food as well as albuminates, the former, as regards a dividend of oxygen, are in the position of preference shareholders, and until their claims for oxygen are satisfied, the non-nitrogenous products of the decomposition of the albuminates get a scanty supply, and must be content to remain in a condition of penultimate metamorphosis.

From this it will be manifest that, apart from diet, a deficiency in the supply of oxygen favours obesity. This is evident, whether the deficiency be due to sedentary occupation or to a want of red blood-corpuscles to carry the oxygen to the tissues. On the other hand, a good supply of oxygen, which is favoured by rich blood and healthy exercise in the open air, favours the complete combustion of the food and diminishes the tendency to obesity.

It is generally admitted that animal fats are capable of forming fat within the body, but, according to recent views, it is extremely doubtful whether hydrocarbons are capable of a similar transformation. We cannot in this place give the various physiological arguments which seem to support this revolutionary view, but must be content with stating that it is commonly accepted that the hydrocarbons of the diet lead indirectly, and not directly, to obesity.

Although these statements, which come to us with such high authority, change completely the chemical view of corpulence, yet, as a practical disease requiring to be combated by therapeutic measures, it stands precisely where it did. Whether the albuminates or the hydrocarbons be the immediate source of the fat, it is evident that by cutting off the latter from the diet we stand the best chance of attaining a diminution of the superabundant adipose tissue. By permitting the patient to consume a fair proportion of albuminates, we keep his tissues well nourished, prevent anæmia, and encourage that activity of function which is the greatest enemy of undue corpulence; while by cutting off the hydrocarbons we necessitate a thorough combustion of the albuminates, which thus form water and carbonic acid in the place of adipose matter.

The observations of BRILLAT SAVARIN on obesity, made more than fifty years ago, are marked by all his well-known acuteness, and his hints to the obese leave nothing to be desired. He insists on three things—(1) Discretion in eating; (2) moderation in sleeping; and (3) exercise on foot or on horseback; but at the same time he remarks that his knowledge of human nature tells him that the self-indulgent mortals to whom he preaches will turn a deaf ear to all his good advice. BRILLAT SAVARIN'S "antiobesique" diet consisted in excluding farinaceous articles, such as Italian pastes, rice, potatoes, maccaroni, and white bread. In addition, he was most particular not to allow eggs, as if his observant eye had foreseen what physiological chemistry has just told us. He replaced the greater number of farinaceous articles by toast and rye bread, of which latter he astutely observes, people are certain not to eat too much. To allow a sufficient interval between meals, and always to rise from a meal with appetite, were amongst the precepts which he thought it right to give. These were the precepts of SAVARIN in 1825; they were the precepts of BANTING in 1869, and are the precepts of IMMERMANN in 1878.

THE *United Service Gazette* reports that Deputy Inspector-General Hill having solicited the Admiralty to be permitted to retain his post at Haslar, instead of being removed to the one vacated by Inspector-General Pickthorn in the department of the Medical Director-General of the Navy, at Spring-gardens, his wish has been granted; and that exceedingly lucky officer, Fleet-Surgeon James N. Dick, recently appointed to the *Britannia*, has been removed from that ship to Spring-gardens.

Annotations.

"Ne quid nimis."

THE AFGHAN WAR.

THE Indian mail, which reached London last Saturday, brings us some further details of the medical arrangements in connexion with the Khyber force. A second base hospital for 200 beds was being formed at Peshawur, instead of Nowshera, as originally proposed; this saves the sick an extra journey of some thirty miles, and economises transport, a consideration of no small importance. Surgeon-major Ramsbottom has been placed in medical charge, Surgeon-Major F. Moore continuing to act as senior medical officer of Peshawur.

The native troops were beginning to fill the hospitals; the exposure and privations incidental to the campaign, the increasing cold of the weather, the inferiority of their clothing and shelter, as compared with the European soldiers, and the liability of the sepoys, accustomed, as the majority of them are, to the sunny plains of India, to suffer from pulmonary complaints when exposed to much cold, have combined to swell the sick lists very considerably in many of the native corps; one regiment, the 14th Sikhs, had 200 men in hospital on Dec. 18th, chiefly with chest affections, were losing six and eight men a day from pneumonia and bronchitis, and were considered generally to be in such a sickly state as to necessitate their withdrawal from the command; they were to march by easy stages to Umballa, one of the healthiest stations in the Punjaub. We may remark, *en passant*, that the native troops took the field with the regimental system—equipment and *personnel*—in force, and that some difficulty has been experienced in dovetailing their medical arrangements with the general hospital system; not due to any want of co-operation on the part of the medical officers of the Indian medical service, but to that dual system of administration which exists, and to which we very recently drew attention. Abundance of warm clothing, in the shape of 60,000 blankets, 20,000 pairs of woollen socks, and 12,000 pairs of worsted mittens, had been raised at Peshawur, and sent on to the front for issue to the troops and native followers. With the thermometer many degrees below freezing at night they will be very welcome. Special attention was being directed to the cleanliness of the camping grounds between Jumrood and Dakka. At first the rush of troops, with the enormous convoys of provisions and baggage-trains, and the general hurry-scurry to push on beyond Ali Musjid, prevented sanitary arrangements being properly carried out. Deputy Surgeon-General Gibbons, however, on arrival at Dakka, took prompt measures to have these defects remedied, and in a few days a vast improvement was noticed. The narrow rocky defiles and small cramped plateaus on which the camps are pitched, with the inveterate habit of the natives to foul any spot irrespective of its use or situation, require conservancy regulations to be strictly enforced. Surgeon-General Kerr-Innes rejoined the army head-quarters on the 18th at Lahore from his tour of inspection of the Peshawur and Khyber forces.

COLD WATER IN COLD WEATHER.

IT should not be forgotten that the sole use of cold water in cold weather is to stimulate the organism to increased activity. A great mistake is made when any part of the body is immersed in cold water, and left to part with its heat without any guarantee that the energy of heat-production so severely taxed can respond to the requirement. It may easily happen that the internal calorific force—if we are at liberty to use that expression—will be exhausted; and if that occurs harm has been done. The obvious principle of health preservation is to maintain the circulation in its integrity; and while the error of supposing that clothing can do more than keep in the heat generated within is avoided, it is not less needful to guard against the evil of depriving the body of the heat it has produced. The furnace should be well supplied with suitable fuel—that is, nutritious food; the machinery of heat-production, which takes place throughout the organism not in any one spot or centre, should be kept in working order, and nothing conduces to this end more directly than the free use of the cold douche and the shower-bath; but the exhibition of these popular appliances in all or any of their forms, ought to be restricted to a few seconds of time, and unless the evidences of stimulation—redness, and steaming of the surface—are rapidly produced, the affusion should be laid aside. The use of cold water in cold weather is a practice which must be governed by rules special to each individual case; and it is with a view to warn the public against the recourse to general recommendations we allude to the subject. Whether the practice recommended be that of plunging the feet in cold water before going to bed, to procure sleep—a reckless prescription, founded on a physiological fallacy—or any other use of cold water, the only safe course is to seek the counsel of a medical man conversant with the patient's peculiarities; and particularly in the cases of children we urge that this precaution should be observed.

MEDICAL MISSIONS.

THE policy of employing medical men as missionaries, grafting a spiritual function on a secular profession, is one thing; the wisdom of providing missionaries with some knowledge of practical medicine is another. We offer no opinion as to the question of missionary policy, but as regards the obvious precaution of arming men who are to be sent out of the reach of medical aid with such information and skill as may enable them to help themselves and others in sickness there can be no hesitancy. The movement to instruct missionaries in medicine claims our support. At the same time it will be necessary to insist that the knowledge with which they are armed shall be adequate to any ordinary emergency. The information they are required to possess cannot be exhaustive, but it must be more than superficial. What they know should be known thoroughly, and studied in schools where the materials and appliances of instruction are of a nature to admit of good work. The best plan will probably be to allow the missionaries selected by societies to attend the required course of lectures and practice at the medical schools. It will not be prudent to admit unordained candidates to these privileges, or, looking to the mutability of human purposes, especially among young men, we shall find youths entering the medical schools under pretence of passing through a limited curriculum for missionary contingencies, and abandoning their original intention to overrun the country as quacks. The profession must protect itself against this peril. There will also be need of a guarantee that the men who study under these conditions shall actually go abroad. It would never do to pave the way for the creation of a class of clergymen acting as curates, or beneficed at home or in the colonies, who would not scruple to oppose their half-knowledge to the learning of fully qualified practitioners among the poor, and perhaps well-to-do but weak-minded sections of the community, who may think that a little medical knowledge grafted upon a spiritual basis must be more effective than purely secular proficiency in the art of healing. If once this abuse were allowed to creep in with the sanction of the profession, it would be impossible to exercise any check on clerical practice. The parson would thrive in his

twofold enterprise of curing the souls and bodies of his parishioners, while the local medical practitioner, despite his legal and full qualification, might undergo dignified starvation. It is better to look these possibilities in the face than to act in haste and repent at leisure. We repeat, the instruction of missionaries in the leading principles of health preservation and the treatment of simple maladies, is expedient and may be practicable, but the attempt to meet the requirement must be guarded from even unintentional and plausible abuse.

INFANT SUFFOCATION IN LONDON.

THE deaths of no less than 503 infants aged less than one year were referred to suffocation within registration London during last year, equal to 3·9 per 1000 children born. In the two preceding years the deaths of infants from this cause were 488 and 486 respectively. Previous to 1876 the causes of death among infants aged less than one year were not separately distinguished in the Registrar-General's Weekly Return. The deaths from suffocation in London, at all ages, have, however, shown a considerable increase in recent years, and, as during the three years 1876–7–8 no less than 88 per cent. of the deaths from this cause were of infants under one year of age, it may be assumed that the increase has mainly occurred among infants. Of the 503 deaths of infants from suffocation in London last year, 140 occurred in the first, 147 in the second, 88 in the third, and 128 in the fourth quarters of the year. These infantile deaths from suffocation are almost twice as numerous in cold winter weather as in the summer; for instance, the fatal cases recorded in August did not exceed 24, whereas they were 43 in December. In the Registrar-General's last-published Annual Report, relating to the year 1876, a very valuable analysis of the causes of mortality of infants under one year of age is given for fifteen large English towns during the four years 1873–6. From this analysis it appears that the average proportion of infants under one year of age suffocated in England and Wales during the four years 1873–6 was 1·4 per 1000 born, while in Scotland it was 1·0 per 1000. In the different English towns the fatality from infant suffocation varied in a remarkable manner; it did not exceed 0·5 per 1000 births in Sunderland, 0·6 in Sheffield, and 0·7 in Manchester, whereas it ranged upwards in the other towns to 4·0 in London, 8·4 in Liverpool, and 9·3 in Birmingham. After making allowance for the unsatisfactory nature of the causes of death, as certified by coroners in infant cases, it is impossible to doubt that these figures show startling variations in the proportional mortality from infant suffocation. That four of every thousand infants born in London should be suffocated during their first year of life is unsatisfactory enough, but the proportions of eight and nine per 1000 in Birmingham and Liverpool afford terrible evidence of the neglect of infant life in those towns.

CLIMATIC SUICIDE.

CAN the physico-mental condition that culminates in an act of self-destruction be climatic? This question has vexed the philosophy of psychologists since attention began to be directed to the mutual relations of mind and matter in the determination of human conduct. At first sight it seems difficult to account for the performance of similar acts by independent persons unless there be some like tendency in their several minds, or the circumstances by which they are influenced compel them to the same expedients and courses. If to these hypotheses we add that of imitation, the congeries of theories by which the fact of a number of suicides or homicides, or crimes of any class, occurring at the same time in the same community or among adjacent peoples, is commonly explained, will be complete. There is, however, a deeper consideration that should not be overlooked. Although we are by no means disposed to accept the dictum that mind is the mere outcome of matter—brain in action,—it is impossible not to perceive that the moral, and even the spiritual, nature of man is, so to say, at the mercy of his brain-power for expression, and as action and conduct react on the mind itself, and help or hinder its development, brain and body must play a conspicuous part in the formation of character. If this, not very complex, proposition be accepted, it follows that the mind may be indirectly exposed to physical influences. Diseases or disturbances of the organism must be potential in the production of mental phenomena; and if of great derangements, why not also of such small modifications as influence self-control and conduct? The production of physical disease by climatic forces is notorious. And it is only logical to recognise the possibility that the same class of "causes" may produce morbid conduct. It is a fallacy to suppose suicides occur with especial frequency in the month of November. Cold and, especially, chill winds, are more closely connected with the perpetration of these calamities than a deficiency of light. The subject is one of great interest, and this suggestion may help to explain the series of sad occurrences which has just visited this country, and other visitations by which the present has been preceded.

UNIVERSITY OF EDINBURGH.

THE Register of the Medical Faculty of this University again shows a considerable increase. The number of students in that faculty for 1877 was 1176; for 1878, 1293. In this faculty the same wide range of supply of students is as remarkable as in former years, and shows how largely our colonies and India are availing themselves of the special educational forces of this country.

The entries in the Register show that of the 1293 students in the faculty of medicine, 565 are from Scotland, 445 from England, 22 from Ireland, 75 from India, 149 from different British Colonies, and 34 from foreign countries. The average age of the students in this faculty is 20·8 years.

The degree of M.D. was conferred on 30 candidates, and the double degree of M.B. and C.M. on 115. The average proportion of students taking degrees is about 1 in 9.

During the past year the following additions have been made to the list of university prizes, scholarships, &c.:—1. The Cameron Prize. A sum of £2000 has been left by the late Andrew Robertson Cameron, M.D., of Richmond, New South Wales, for the purpose of establishing a prize to be given at the Graduation Ceremonial in August in each and every year to the practitioner or member of the medical profession who shall be adjudged to have made the most valuable addition to practical therapeutics during the preceding year—the word "therapeutics" to be taken in the widest sense, as including every agent or agency capable of influencing the human body in the maintenance or improvement of health, the avoidance or cure of disease, or the alleviation of suffering. 2. Dr. John Aitken Carlyle's Bursaries. Dr. Carlyle has, through the Association for the Better Endowment of the University, founded two Bursaries, of the value of £30 each, to be awarded by competitive examination. One is open annually to students in the first year of their medical course for proficiency in anatomy and chemistry, the other open to students in the second year of their medical course for proficiency in anatomy and physiology. 3. Two Mackenzie Bursaries, of the annual value of about £25 each, have been founded in memory of the late William Mackenzie, F.R.C.S.E., formerly Demonstrator of Anatomy and Conservator of the Anatomical Museum in this University. They are open to students in each of the junior and senior anatomy classes respectively, and will be awarded at the

end of the session to the student who has displayed the greatest industry and skill in his practical anatomy work.

The new buildings for the medical school were commenced last autumn, and will be vigorously pressed forward with the view of having the whole range completed, and the respective departments in full operation, in time for the commemoration of the Tercentenary of the University, which will take place in 1882.

SMOKING AGAINST FOG AND DAMP.

THE smoker, fortifying himself against fog and damp with the cheerful glow of a cigar in front of his face and the fragrant incense beguiling his nostrils, is apt to forget that nicotine is a potent depressant of the heart's action. We do not assert that it even commonly acts as such when used in moderation, or that a good cigar is to be despised. We have no sympathy with prejudices against wine or tobacco, used under proper restriction as to the time and amount of the consumption. A mild and sound stimulant with meals, and a cigar when the mood and the circumstances are propitious, are not only to be tolerated, but approved. Meanwhile, it is desirable that these things should be used with an intelligent appreciation of their effects, and it is beyond question that one of the most formidable effects of tobacco is its influence on the heart's action. Now it is upon the integrity of this function the heat of the body depends, and nothing could be more short-sighted than to weaken or hamper the central organ of the circulation at a time when it is especially necessary that its work should be performed with due celerity and completeness. In warm weather a cigar exercises a cooling influence by lowering the heart's action. In the cold season it may—we do not say it will—possibly depress, and so increase the mischief it is sought to mend. Fogs and cold vapour tend to reduce the oxygenating properties of the air taken into the lungs, besides exercising a specific influence on those delicate organs. Tobacco-smoke may warm the air; it is scarcely possible that it can affect its quality or render it innocuous. There is, however, a peril that it may depress the circulation. Hence the need of moderation and care.

WEATHER AND MORTALITY: NEW YORK AND LONDON.

IN continuation of an investigation on the influence of weather on mortality from different diseases and at different ages, and of which the earlier results, relating to the mortality of London, were published four years ago, Mr. Alexander Buchan and Dr. Arthur Mitchell, in the recently issued number of the *Journal of the Scottish Meteorological Society*, examine the question in relation to New York in comparison with London. The paper in which the subject is discussed is scarcely of less interest than the first paper. It describes the climate of New York, as contrasted with that of London, to be characterised by hotter summers, colder winters, great fluctuations of mean temperature from month to month, comparative absence of raw weather, great dryness of air, a rainfall by no means frequent, but copious when it does occur—conditions chiefly due to the lower latitude of New York and to a very large proportion of the winds being continental and not oceanic, as in the case of London. Notwithstanding these differences in meteorological character, the annual causes of mortality for New York correspond very closely for the greater number of diseases with those for London. The differences observed are, however, marked and important. The curve of monthly mortality from all causes in New York, for each of the years examined (1871–77), shows a much closer approximation to the mean monthly curve for the whole period than occurs in the case of London. The curves of mortality from scarlet fever and whooping-cough differ remarkably in the two cities. In London the maximum of scarlet fever mortality occurs in October and November; in New York in February, March, and April. In London, again, the mortality from whooping-cough shows a single maximum; in New York the curve has two maxima, one occurring in February and March, the other in August and September. In New York, as in London, the curve of the mortality from bowel complaints is the most pronounced of all the curves, but in New York this is not, as in London, determined wholly by infantile diarrhœal mortality. Taking the curves of mortality from all causes at different ages, the absence of the winter curve in New York, which in London is as characteristic as the summer curve, is especially noteworthy. The examination of the different curves suggests many interesting points of inquiry, which we have little doubt will not be suffered to fall from sight in the great city across the Atlantic.

SCURVY IN THE MERCANTILE MARINE.

ON the 11th inst. the captain of a British ship named the *Red Gauntlet*, of Liverpool, was charged at the Bow-street Police-court with having neglected to provide, or cause to be provided, a sufficient and regular supply of lime- or lemon-juice for the use of his crew, in accordance with the provisions of the Duke of Richmond's Act of 1867. Two men were admitted into the *Dreadnought* Hospital at Greenwich, suffering very severely from scurvy, and it was proved, by notes very industriously compiled by Dr. Henry de Fonmartin, house-physician to the institution, that the juice was given out weekly instead of daily, and was not issued at all in accordance with the provisions of the Act of Parliament. Mr. Flowers, the presiding magistrate, thereupon fined the master of the ship the minimum penalty of £5 and costs, "as a warning." These facts cannot possibly obtain too much publicity, and it would be well if the Board of Trade showed a little more activity in prosecuting such cases promptly. If this were done, we should hear very little about scurvy in the mercantile marine; and it is manifestly the duty of the Seamen's Hospital Society to keep the Government fully informed of all outbreaks of scurvy that come to their knowledge. Since these notes were written, two other ships, on arrival in the port of London with scurvy, have sent several cases to the Seamen's Hospital, and all interested in this now, happily, rare disease should go to the *Dreadnought* and look at the seamen admitted from one of these ships, which, according to the report of Dr. de Fonmartin, house-physician, are really typical cases of the disease, the spongy gums and bruised joints being specially marked. Dr. de Fonmartin has compiled some notes of these cases also for the information of the Board of Trade.

THE "SEPARATE SYSTEM."

THE Committee of the Lower Thames Valley Main Sewerage Board have, as we think very judiciously, sent out a circular letter to all the sanitary authorities of which the Board is composed, asking for their opinion as to the adoption of the "separate system" in their future drainage operations. And, writing advisedly, we conjure all local authorities to give their support to the separate system. The old drains are already made to carry off the so-called storm-water, and the new pipes required for the removal of the sewage proper can be readily constructed of comparatively small calibre, in accordance with present and future centres of population. Those who are specially interested in this question should go to Eton or to Windsor Castle, and inspect there the system arranged and adopted by the late Mr. William Menzies, the particulars of which were described in THE LANCET of Oct. 17th, 1874. It seems, indeed, that, if sewage utilisation is to be successful, the

separation of the rainfall from the sewage must be a necessary and inevitable preliminary step. And, as will be seen by a visit to the above-named places (as well as to Abingdon and other towns), it is a mistake to suppose that the works or the working of the plan are costly. It does not do to start with utopian ideas culminating in a large profit, and so forth. But, according to the practical results attained up to the present time, it seems to us that the separate system, combined with simple surface irrigation, gives the most hopeful commercial prospect, and hence will most favourably commend itself to ratepayers, particularly in small communities.

THE CLIMATE OF CYPRUS.

IN the last number of the *Journal of the Scottish Meteorological Society*, Mr. Alexander Buchan, the meteorological secretary, gives an account of nearly four years meteorological observations made in Cyprus by Mr. Thomas B. Sandwith, H.M. vice-consul there. The observations began in October, 1869, were continued to June, 1870, and were made at the instigation and with the assistance of the Society. Part were conducted at Larnaca on the sea-coast, and part at Alethriko, three and a half miles inland, at an elevation of 300 feet above the sea. The general result presents the climate of the island in a most favourable aspect. The winter climate, extending from November to April, is described as "exceptionally good" for two reasons. First, its mean temperature ranges from 52·8° to 60·9°, "being the limits of temperature between which deaths from diseases of the respiratory organs and from bowel-complaints are either at the minimum or comparatively small." Second, the lowest temperature noted during four years was 36·1°, and the temperature seldom falls below 40·0°, and "hence the winter climate is singularly free from the discomfort and positive injuriousness to the health inseparable from temperatures ranging from 40·0° to 32·0°, and lower." The summers are very hot and rainless, and "must, therefore, be exposed to an increased unhealthiness and mortality from bowel-complaints and other diseases incident to climates where the mean temperature reaches 81·5°." Of course, Mr. Buchan's observations relate to atmospheric conditions only as affecting the healthiness or unhealthiness of the climate.

FRENCH DOCTORS.

THE writer of the pleasant and instructive article in the *Daily News*, entitled "Round about France," has lately given an interesting notice, which appeared on the 17th inst., of French doctors. To be a doctor in France signifies, he says, something more than to have the privilege of healing the sick, for medical men have of late years become very pushing candidates for political honours. There are thirty-eight of them in the Lower House, and about a dozen in the Senate. They also muster thick in the Councils-General, and are more numerous still in the Municipal Councils, where they almost balance the legal element. The writer declares that France has more doctors than any other country, the consequent overcrowding of the profession driving many physicians into politics. Some physicians pursue politics deliberately, others almost imperceptibly glide into political life by acquiring influence as country doctors. It is not the best physician who always gets most easily elected; some doctors are too useful in their professional capacity to be allowed to sink themselves in politics. While those who steadily hold on their course as medical practitioners enjoy many of the comforts and pleasures of this life, they have their full share of disappointments and annoyances. French patients are not more grateful than English. As in England, "there exists a crooked opinion among the French peasantry and working classes that a physician should regard himself as a philanthropist, and pay his butcher's bill with the mere thanks of his patient; and at the end of the year he is treated as an extortioner, because he has charged a sum which will barely pay for the wear and tear of his horse and gig."

THE QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

WE are glad to record that the conduct of this hospital has been improved in many ways. Since its reopening questions of ventilation and cubic space have received due attention, and the resident staff has been modified so as to insure a constant and intelligent supervision, and diminish the risk of conveying infection from one patient to another. During the year 1877, 466 women were admitted, which is stated to be the largest number ever admitted into the hospital (with one exception) in any single year. Of these 6 died, giving a proportion of 1 death to every 78 patients, as against 1 death in 36 for the eighteen years 1857–75, and 1 in 22 for the year 1876.

The hospital was reopened on February 15th, 1877, after being closed for three months, and after a thorough cleansing, &c., rendered necessary by a severe outbreak of puerperal fever. It would have been most disheartening had not the condition of the institution shown some improvement in the ten months and a half immediately following. We would warn the medical officers not to adopt too jubilant a tone in their reports. One swallow does not make a summer, and it is impossible to place the results of ten months and a half against those of nearly twice as many years. We trust, however, that the new *régime* will go on as successfully as it has begun.

BARRACKS v. HULKS.

OUR contemporary, the *Army and Navy Gazette*, in a well-timed article last week, speaks jubilantly of the signs that have lately appeared indicating some positive determination on the part of the Admiralty to build barracks at Portsmouth and Plymouth, or maybe at both places, for the sailors of the Royal Navy, in order to do away, as far as possible, with the hulk system. "It has been decided," says the *Gazette*, "to make a vote this year for the above purpose, and already we hear of the Medical Director-General inspecting sites," &c. We endorse the jubilant remarks made with much satisfaction, doing so simply on sanitary grounds; for it is not an exaggerated style to call the hulk system an abomination. Although these obsolete vessels generally rank as flag-ships, and are usually commanded by senior and experienced officers, there is something in the atmosphere of a vessel at fixed moorings decidedly deleterious to the *physique* of her inhabitants, and, as some insist, to their *morale* as well. Unless her interior is most rigidly supervised, from spar-deck to keelson, and she is as well and carefully ventilated as the *Britannia* and *Hindostan* cadet-ships at Dartmouth, foci of disease are speedily established, and eradicated always with great difficulty. The nethermost parts of a stationary ship should be as clear of stores as the main truck; and the hold, in fact, should contain almost nothing but coal-bunkers and water-tanks, these being placed so that there shall be plenty of clear space along the sides as well as above the keelson. We are convinced that nothing short of this will ensure even ordinarily good sanitary conditions; and all experienced commanders know how very difficult it is to keep to the rules above indicated, particularly with fluctuating numbers. Hence, wherever it is possible, the barrack should undoubtedly be substituted for the hulk system of accommodation. In some of our small naval stations abroad, the latter plan may perhaps be unavoidable. But in the United Kingdom, there can, as we take it, be no

possible excuse for thrusting a lot of bluejackets and marines into an old vessel half eaten up, perhaps, with dry rot, and moored very probably in a creek, stream, or estuary that receives the sewage of a large riparian population.

PLANE SECTIONS OF FROZEN BODIES AT THE COLLEGE OF SURGEONS.

WE are pleased to find that this most important method of anatomical illustration is being carried out at the College. Subjects, whose vessels have been carefully injected with coloured plaster-of-Paris, are placed in zinc tanks, surrounded with ice and salt. In a few days they are frozen so hard that sections are readily made with a common saw. The sections now being made are both horizontal and vertical, and will well supplement the splendid collection of normal human anatomy which is daily being added to in the museum. We are not aware whether it is contemplated using the sections for the examinations, or whether they are to be merely for reference or for the completion of the anatomical series. We cannot imagine such an examination as the Fellowship complete without involving an acquaintance with the plane sections, and we think that every school museum should have its *répertoire* of such specimens, which can be so easily and cheaply made.

The works of Pirogoff, Braune (translated), Legendie, and others, will give all requisite directions, and it is a matter of surprise to us that it has been hitherto necessary to refer to or translate these works, and that the want of indigenous talent and enterprise has been the cause.

THE PATHOLOGY OF TYPHOID.

THE announcement of the discovery of the fungus of typhoid fever will be received with considerable hesitation by most of our readers, with the result of certain not very remote investigations in their minds. Nevertheless, a series of researches which have recently been published by Dr. Letzerich, of Braunfels, and which appear in the *Archiv für Experim. Path.*, are worthy of at least a passing notice. A year or two ago this observer announced the constant presence in the blood of persons suffering from typhoid fever of isolated micrococci and of spherules of protoplasm which, under cultivation, speedily developed to micrococci, minute, round, or ovoid refracting corpuscles, moving in the blood-plasma and possessing a great power of resisting the action of acids and alkalies. By the simple growth of these isolated bodies there arise, it is said, spherules of protoplasm in which appear myriads of first rods and then granules. In the height of the disease the blood from the arm contains, moreover, colonies of micrococci connected together irregularly, but these are believed to come, not from the blood, but from the lymph spaces. Both the forms which are seen in the blood, the granules and spherules, wander through the walls of the vessels into the tissues, and in the nerve tissues they are said to cause signs of irritation.

Many experiments were made upon rabbits by the injection of the organic bodies from the typhoid stools. By allowing the stools to stand in glass cylinders, and repeatedly washing, a layer a few millimetres thick was at last obtained, containing a large proportion of micrococci. The injection of this caused in rabbits a typhoid-like illness lasting a fortnight, ending sometimes in death, and presenting, after death, enlargement and induration of Peyer's glands, and great swelling of the mesenteric glands. The appearances were the same whether the poison was given by the mouth or by hypodermic injection. In the latter, there was first an infection of the neighbouring lymphatic glands, due to a growth of organisms and increase of cells. By the extension along the lymphatics these micrococci become generalised, and post mortem they may be recognised everywhere, but especially in the intestinal canal, where the affection is chiefly localised. When the poison is given by the mouth the intestinal canal appears first to be affected, and from that the generalisation occurs. In no case, however, was ulceration of the intestinal glands found, and this must be admitted to constitute a grave discrepancy between the affection thus produced and typhoid fever. The localisation of the affection was most intense, however, as in typhoid, in the lower part of the ileum. From these researches Letzerich concludes that typhoid must be regarded as a pure schistomycosis. It must be confessed, however, that, clear and apparently satisfactory as these statements are, and probable as such conclusions are from the knowledge we possess of the pathology of other diseases, they still "need confirmation."

"HARD TIMES AND STUDENTS' WORK."

OUR Glasgow correspondent writes:—"It was noticed in June last that for the first time in Glasgow a dispensary, the leading feature of which was the visitation of the poor at their own homes, had been established in connexion with Anderson's College. The project was attended with a great amount of success in regard to the attendance of the students, and the desire of the public for their services even during the summer and autumn. But when the distress consequent on the bank failure and diminished trade plunged many families into the borderland of pauperism, the work became so great as to render more systematic organisation necessary. An enthusiastic meeting of students and the dispensary staff was held early in the session, and the city was divided into districts, to which the students were drafted. At present the scheme is carried out in the following manner:—From 11 to 11.30 A.M. the names of patients requiring visits are received, and afterwards a list, according to the districts, is hung up daily in the college, with addresses and students' names attached. The students—third or fourth year's men—individually, accompanied by one or two juniors, make the visit, write a prescription, which is afterwards taken to the dispensary to be made up, and on the following day enter in a journal kept for the purpose the nature of the disease and the remedies ordered. This journal is under the direct supervision of the acting dispensary physician or surgeon; and in all cases of doubt their services may be called on. Since the winter began no fewer than one thousand first visits have been made, entailing on an average two thousand subsequent visits; and notwithstanding the other calls on the students' time, it is gratifying to state that there has been no flagging on their part in an effort which is purely charitable, and which in itself shows that our future practitioners are thus early in their career alive to the most humane interests of their calling in times of exceptional poverty and distress. Why should not other large towns, which have schools attached to them, start, if they have not already done so, a similar scheme of relief, and ask the students to aid them?

HOSPITAL EXPENDITURE IN PARIS.

FROM returns recently issued, it appears that in the department of the Seine there are 18,001 beds in twenty-seven hospitals, and that the average cost per bed was £35 1*s.* 8*d.*, varying from £15 19*s.* 6*d.* at the Hôpital des Menages, to £73 18*s.* 6*d.* at the Clinique. At the Hôtel Dieu the cost is between these two extremes, being £47 15*s.* 10*d.* These figures are not very different from those of the English hospitals, where very wide differences exist in the bed-expenditure. The Paris hospitals are all State institutions, and many of them are comparable with our poor-houses rather than our hospitals. The figures are of little value unless we are in possession of more details. It is necessary

to know, before any conclusions can be drawn, whether money spent upon the maintenance of the buildings is calculated as bed-expenditure. It is interesting to note (as might reasonably be inferred) that those institutions devoted to clinical teaching have the heaviest bed-expenditure. This has invariably been found to be the case in London.

THE OXFORD CORONER.

MR. HUSSEY, F.R.C.S., late senior surgeon to the Radcliffe Infirmary and coroner for the city of Oxford, is, we learn from the *Oxford Times*, still pursuing a course which is, to say the least, most undesirable. An inquest was held on the 16th inst. on a poor fellow who had broken his back by a fall from a waggon, and who died in the infirmary. Instead of summoning the house-surgeon, as is the invariable custom throughout the country, the coroner considered it necessary to compel the attendance of Mr. H. P. Symonds, the surgeon, who obeyed the coroner's mandate, but at the same time protested against the conduct of that official. An altercation arose between the coroner and Mr. Symonds' attorney, and the former indulged in many unnecessary and irrelevant remarks, which did not in any way enhance the dignity of the Coroner's Court.

THE LATE DR. MACKAY, R.N.

IT may be in the recollection of many of our readers that a memorial was subscribed for by the friends and admirers of the late Dr. Alexander E. Mackay, R.N., who, for some years, did most valuable service to the Navy in the office of Sir Alexander Armstrong, Director-General, at Whitehall. This memorial has taken the form of a panel in the new reredos in St. Mark's Church, Hamilton-terrace, St. John's-wood, and of an oil-painting by Mr. E. Armitage, R.A., representing the Saviour commending works of Christian charity to His disciples. A simple but very suitable inscription is carved under the picture in the Devonshire marble. Part of the money raised is devoted to the erection of a marble cross in Willesden Cemetery over the grave, which was finished some months ago.

LITHOFRACTEUR.

A LARGE meeting was lately held at the Moonta Mines in South Australia to protest against the use of the explosive known as lithofracteur, which was stated to be highly injurious to the health of those who used it. Many speakers took part in the discussion, all of whom seem to have had practical experience in mining, and, according to their statements, lithofracteur was productive of phthisis, bronchitis, convulsions, and death. It was said to be more injurious than gunpowder, and no single speaker was found to advocate its employment.

CHOLERA IN ASIATIC TURKEY.

A TELEGRAM from Madrid, dated Jan. 21st, states that an official despatch has been received there, reporting that cholera is increasing in Turkey and Asia. This is the first information received here of cholera being present, and in an active form, in that part of the globe. Having regard to the source of the news, there can be little doubt that it is one of those loose rumours in which the Spanish quarantine authorities appear to take delight.

A SANITARY PRIMER FOR INDIA.

IN the latest received number of the *Gazette of India* (Dec. 14th, 1878) the Government of India offer a reward of 500 rupees for the best Sanitary Primer suitable for use in Indian schools, both English and vernacular. The work must be in the English language, from which it will afterwards be translated into the principal languages of India. It is required to be simple, "without theories" (? hypotheses), thoroughly practical, and showing in particular the chief sanitary defects of Indian towns and villages, and the best means of remedying these defects. Further, it must not cover more than from twenty-four to thirty pages of print, of small-pica octavo size. Competing primers, either in print or very legible manuscript, are to be sent so as to arrive not later than the 1st of April, 1879, at the Home Office, Calcutta. Each should bear a motto, and have a sealed envelope attached, with the same motto outside and the name of the author within.

"SHIVERING SENTRIES."

IT is satisfactory that attention is being directed to the subject of shivering sentries—one for which we asked public notice several years ago. The inclement weather of the last fortnight has naturally induced us to think of those solitary and shivering individuals pacing up and down some windy side of a Royal palace. The police are all-sufficient for the maintenance of safety and security in the frequented quarters of the metropolis, and, if we except some three or four public buildings, there can be little reason why, after eight o'clock, the rest of our large establishments should not be left to the care of Sir Edmund Henderson's satellites.

THE HEALTH OF THE RUSSIAN ARMY IN BULGARIA.

THE latest reports from Bulgaria give an unsatisfactory account of the sanitary state of the Russian forces there. Small-pox has made its appearance among the troops, contracted, it is believed, from the Bulgarian levies, among whom the disease appears to be epidemic. Although the disease has not yet got a firm hold of the Russian forces, it is reported to be extending, and it would seem that the efforts to stamp out the malady at the beginning have not succeeded.

IT is proposed to raise a Memorial Fund to the memory of the late Princess Alice, and which will be named the "Alice (Darmstadt) Memorial Fund." It is felt that such an object will be best carried out by applying whatever may be contributed to the extension and support of an institution in Darmstadt which bears the name of her late Royal Highness, as having been founded by her, and in which, up to the time of her death, she continued to take a great and practical interest. This institution is the Alice Hospital at Darmstadt. To this hospital is attached a training-school for nurses, some of whom attended with great devotion the members of her late Royal Highness's family during their recent illness. After providing for the above object as a memorial, the committee would devote any remaining funds to the Orphanage of Darmstadt, in which the Princess Alice also took much interest. The fund will be administered under the presidency of His Royal Highness the Grand Duke, and the project of raising such a fund has received the gracious approval of Her Majesty the Queen. Messrs. Coutts & Co., the bankers, will receive contributions.

WE regret to hear of the death, from yellow fever, at Honduras, on the 17th November, of Surgeon F. W. Crofts, Army Medical Department. Dr. Crofts entered the army in February last, and had only just reached the colony, with his young wife, when he fell a victim to that terrible and fatal disease.

AT this week's meeting of the Clinical Society (Jan. 24th) Dr. Headlam Greenhow, F.R.S., the President, will deliver an address.

SIR GARNET WOLSELEY has confirmed the appointment of Dr. Heidenstan as town magistrate and sanitary officer of Larnaca, in Cyprus, "at a salary of £300 a year." Verily, the medical profession in our recently acquired possession must learn to be thankful for very small mercies!

WE understand that Mr. Brudenell Carter will reply in the February number of the *Contemporary Review* to a paper on "The London Medical Schools," by Mr. William Gilbert, which appeared in the *Fortnightly Review* for January.

PROFESSOR REDWOOD ON "ELECTRICITY AS A SOURCE OF LIGHT."

On the 8th inst. Professor Redwood delivered the first of a course of lectures on Electric Lighting before the Pharmaceutical Society.

The Professor commenced by reminding his audience that thirty years previously he had lectured in the same place on the same subject. It was then sought to produce electric illumination by the aid of ordinary galvanic batteries, but all efforts in that direction proved abortive, since the very best batteries were too inconstant in their action to be of practical use. Even at that period, however, and with the means then available, there were men—practical and scientific men—who not only believed in the feasibility of making the electric light applicable for many if not most of the purposes for which we require artificial light, but who considered that it could be obtained at no greater cost than that usually incurred in producing, by other means, an equal amount of light of inferior quality. Many men were then, as now, enthusiastic on the subject. Patents were taken out and companies formed for introducing the electric light as a substitute for gaslight; in fact, there was just the same sort of excitement on the subject, although not the same amount of it, then as exists at the present time. "What has been done," asked the Professor, "during those thirty years, and how comes it that we are here discussing the subject of electric light as if it were a new subject? With reference to the first part of this question it may be said that, after many trials of many forms of apparatus, some of which were identical with some of those now again patented, it was found impracticable to accomplish what was required. None of the proposed forms of apparatus could be relied upon for supplying a constant light without continued personal attention, and no method was known by which the current could be broken up so as to be distributed to an indefinite and varying number of lights. From a single motive power a single light could be obtained; but the intensity of this light, while it adapted it for some purposes, rendered it unsuitable for general use.

"Faraday, at a meeting of the British Association in 1849, in a discussion on the electric light, remarked on the inapplicability of it for purposes of general illumination, stating that objects not directly illuminated appeared dark when the eye was embarrassed by the intensity of this light. The result was that it came to be considered a very suitable light for lighthouses, but not for the ordinary purposes of house and street lighting. And even for use in lighthouses the galvanic battery could not be relied upon for supplying a constant and sufficient current without incurring undue expense. With reference to the latter part of the question, it may be said that the subject of electric lighting has two phases—one relating to the feasibility of applying for the proposed purpose the electricity developed by galvanic batteries, and the other relating to the application for the same purpose of the electricity produced by *mechanical action*. In regard to the feasibility of using galvanic batteries the question was answered in the negative thirty years ago; but with regard to mechanical sources of electricity the question remains to be answered; and thirty years' experience, coupled with practical demonstration of results, seems to justify the anticipation of at least a more favourable answer than would have been looked for some years ago. It is, therefore, to the use of the magneto-electric machine, as the source of dynamic electricity, that we are to look, if at all, for the successful introduction of the electric light."

While admitting that much and very important progress has been made in overcoming many of the difficulties which beset the path of the practical electrician in making electricity serviceable for the purpose of illumination, Professor Redwood is very far from believing that all obstacles have yet been overcome. For the shareholders in gas companies the professor made some remarks which were equally full of hope and common sense. "When railroads were first introduced," he said, "it was predicted that horses would cease to be required, and that they would probably become wild animals of our woods; and now that the electric light has become a realised fact in our streets, shops, and factories, equally rash anticipations are formed of the extent to which this new light is to supersede the use of gas. The actual result will probably accord in the latter case with what it has proved to be in the former. Both will find their appropriate applications; the one supplying, as at present, sufficient light for ordinary purposes, and the other affording a more intense light for special applications. It is to be much doubted whether we do not even now use more artificial light than is good for us; and this, to a great extent, arises from what has been, and will continue to be, a strong inducement to the use of gas—that, as compared with the electric light, it is what the horse as a means of locomotion is in comparison with railroads—it is docile and accommodating. We can provide and store it, and use it as required. From the storehouse or stable we can lead out a supply for an army or for an individual, and we can break up our supply, whatever it may be, into an indefinite number of branches of various dimensions."

Professor Redwood next passed in review the various electric candles which have been invented, and showed how the difficulty of maintaining the proper distance between the carbon points had been overcome by Warren de la Rue, Staite, Duboscq, and Serrin. It was shown that one of Staite's inventions very nearly approached to the Jablochkoff candle, which consists of two carbon rods separated by a column of kaolin. Rapieff's apparatus, which is used in the *Times* printing office, is a double arrangement, having two positive and two negative poles placed vertically, and kept in position by a weight and a magnet, the chief advantage of which lies in the fact that the carbons can be changed, one at a time, without extinguishing the light. Ingenious as these various "candles" are (and the principles involved in most of them are nearly thirty years old), they proved of no real value as long as the current supplied to them had to be obtained from inconstant batteries. With battery currents another difficulty besides inconstancy had to be contended with—viz., the tendency which the positive pole has to waste away, while the negative pole has a tendency to increase in size. This is due to the fact of the battery current always passing in the same direction. With the invention of the powerful magneto-electric machines, in which the direction of the current is incessantly changing, the last difficulty was obviated; and when, in 1876, the Gramme machine was wedded to the Jablochkoff candle, electric lighting seemed to be an accomplished fact.

The questions remaining to be solved are mainly three—viz. (1), the cost of producing the electricity; (2) the best form of regulator for giving the light; and (3) the extent to which a current can be broken up and made economically available for many lights. The first question the Professor did not answer. With regard to the second he remarked that the only drawback to the Jablochkoff candle is that it is short-lived.

"The Wallace-Farmer regulator consists of two carbon plates, each about half an inch thick, nine inches long, and three inches broad. They are placed one over the other in a grooved frame, with two of the longer thin edges of the plates brought vertically into contact, or nearly so. The lower plate is fixed, while the upper one, which forms the positive pole, slides up and down vertically in the frame, being supported, when in action, by an electro-magnet, which keeps it at a short distance from the negative plate. The electric discharge takes place at the point at which the surfaces happen to come nearest together, and as these wear away the light travels along the contiguous edges of the plates to and fro as long as the carbons last. These regulators are not so much intended for use in lamps as for the

rough open-air use in cases where an enduring light is required."

The last regulator described by Professor Redwood was that known as the Werdermann. In this regulator the positive pole is placed below the negative, the bulk of the latter being sixty times greater than the former. The poles are kept constantly in contact; but since the positive pole is a rod of very small diameter, the points of contact are insufficient to carry the current, and they are, therefore, surrounded by the usual luminous arc.

THE "PLAGUE" IN RUSSIA.

THERE is still a want of very definite information as to the nature of the fatal disease which has broken out in the province of Astrakhan. The latest accounts which have been published in the Russian official journal for the most part have referred to the malady simply as "the disease" or "the epidemic." This extreme vagueness, we may hope, however, is about to come to an end; for a telegram has been made public, sent from Archangel to the Ministry of the Interior, under date the 13th January, by Dr. Krassovsky, one of the physicians deputed by the Government to investigate the outbreak, and which gives somewhat clearer information as to the malady than has previously been received. The telegram is as follows:—

"I arrived at Vetlianka on the 27th December (9th Jan.) There were four patients there, and on examining these the next morning I found three suffering from inflammation of the chest with typhoid symptoms, and one with an old wound in the groin of doubtful origin. The same day Dr. Morozow died after six days' illness from pneumonic typhus, caused by exposure. The 28th December (10th Jan.) there were no new cases of sickness; the 29th (11th Jan.) there was a case of intermittent fever; and on the 30th (12th Jan.) a woman died from inflammation of the chest, and another woman of typhus; two deaths from pneumonic typhus.

"From the examination I made of these cases, the list prepared by Dr. Morozow, the information given by Dr. Grigoriew, and lastly the report prepared by the medical inspector, concluding that the epidemic of Vetlianka was plague, and from a consideration of the whole of the facts, I have come to the conclusion that this epidemic was a galloping typhus (*typhus galopant*) complicated in the greater number of the cases with inflammation of the chest. The mortality which has occurred has been determined by the unwholesome hygienic conditions under which the people live and the insufficiency of their food.

"All the infected houses have been either fumigated with sulphur or ventilated, or sprinkled with carbolic acid, and a mixture of sulphate of iron and carbolic acid has been used for disinfection in the courts and outhouses. A layer of quick-lime has been spread over the cemeteries.

"The deaths number 273, the sick more than 300. Vetlianka contains 347 houses and 1800 inhabitants."

A telegram from the governor of Astrakhan also reports, under date the 1st (13th) January, that the disease had ceased in several localities, and that he had dispatched a physician to the island of Taboun-Aral for the purpose of making inquiry as to the nature of a disease which had killed five of the Kalmuck tribe, living on the island, in December. The physician reports that the mortality depended upon "accidental circumstances," and had no relation with the outbreak at Vetlianka. The tribe live in "dug-outs," and at the time of the physician's visit there was no sickness among them. None of the persons attacked had visited or had any relations with Vetlianka. The physician adds, however, that he was unable to express an opinion on the nature of the fatal malady, as he saw neither the sick nor the dead. A meeting of medical men, held at the governor's house to consider the report, concluded that the death of the Kalmucks must be attributed to "peculiar circumstances" *(circonstances particulières)*. Directions were given for observation of the tribe, and disinfection of the dug-outs in which the deaths occurred. At the same meeting Dr. Depper, principal medical officer of the Cossack troops—the "sole survivor" of the medical men who gave assistance at Vetlianka during the worst period of the outbreak,—read a memoir on the nature of the disease which had prevailed there. His conclusion on the subject is not stated, but the meeting recommended a continuance of the measures of quarantine, disinfection, and isolation of the sick, which had been adopted in the localities where the disease had appeared.

The two medical men who had special charge to study and watch the epidemic maladies which showed themselves among the Russian forces in Turkey in Asia, and especially at Kars and Erzeroum, during the late war, have been directed to proceed to Astrakhan to make inquiry into the malady which has appeared there.

As we are about to go to press, information reaches us from Russia which gives news from the infected districts of Astrakhan to the 10th inst. It describes the malady, on the authority of the Governor of Astrakhan, as running invariably a rapid course, and almost always ending in death within forty-eight hours. The principal symptoms are stated to be sudden access of severe headache, accompanied by vomiting, and followed by extreme prostration. The *Times* correspondent in Vienna telegraphs, under date the 22nd January, that the Austro-Hungarian Government had become alarmed by the reports from Russia as to the epidemic in Astrakhan, and that it was concerting measures with the Roumanian Government for protection of their frontiers against any introduction of "plague" from Russia. A military *cordon* on the frontier and quarantine at the railway stations were (strange to say) spoken of. He adds that the St. Petersburg weekly medical journal rails at the official description of the disease in Astrakhan as typhoid pleurisy, and avers that it is plague, which very often shows itself in the lungs.

Correspondence.

"Audi alteram partem."

ON OSTEOTOMY OF THE FEMUR AND TIBIA FOR GENU VALGUM ET VARUM.

To the Editor of THE LANCET.

SIR,—My attention has been drawn to Dr. Macewen's lecture on Antiseptic Osteotomy, published in your journal of the 28th of December last, and more especially to the penultimate paragraph, from which I gather that he considers himself aggrieved by certain expressions and omissions which he conceives occurred in certain papers of mine published in a contemporary; while by pretty direct implication he lays to my charge suppression of and a sort of piracy on his procedures. He says in the paragraph above alluded to—"in which [my papers] Mr. Barwell refers to the first operation described by me, but takes no notice of the second procedure published in the same paper."

Now, Sir, I certainly had not, till a few days ago, the slightest idea that Dr. Macewen cuts off, as I do, the lower end of the femur; his name is identified with a certain mode of loosening the internal condyle. I feel sure that if anyone—if Dr. Macewen himself—will read the last unbracketed paragraph of his first lecture (March, 1878), he will find that the direction and object of the osseous incision in what he calls his "second procedure" is left quite uncertain; and, as the bulk of the lecture is occupied with the mode of taking a wedge from the inner condyle, the only conclusion to be got from this paragraph, as also from the private letter to which he alludes (see quotations in Dr. Macewen's lecture published on Dec. 28th, 1878), is that in some cases he does not remove a wedge, but simply incises that portion of bone, loosening it, but not dividing it from the shaft.

In regard to my operations the facts stand thus. I first divided the femur for osseous anchylosis at the knee on the 2nd December, 1876.[1] In April, 1877, I divided both tibiæ and fibulæ, and shortly after both femora, for bowed legs. On Feb. 14th, 1878, I divided the same bones for knock-knee. Therefore, it will be seen my operations were previous to Dr. Macewen's lecture (March, 1878); but not only so—the operations were absolutely antecedent to Dr. Macewen's "second procedure," for although he gives no date for the adoption of that method in his first lecture, one may by

1 I have performed many other operations than those now mentioned, but give here only the data determining cases.

internal evidence fix the second week in March as the right epoch (in the last lecture, Dec. 28th, he speaks of May 10th, probably meaning March 10th); thus my operation for knock-knee precedes Dr. Macewen's "second procedure" by twenty-four days.

Moreover, Dr. Macewen, in his lecture of Dec. 28th, states that in severe cases he divides not only the femur above, but also the tibia below, the knee; thus performing and advocating at the present time, and without mention of my name, the very operation which I practised twenty months ago, and advocated in May, 1878, and which was never previously done, or proposed to be done, by any surgeon. Really, Sir, I think, under these circumstances, that, if anyone has a grievance, it is I, more especially as this mode of operation for severe bow- or knock-knee is, I fully believe, destined to survive all others: (1st) because a supposed overgrowth of the inner condyle is a mere hypothesis, unsupported by even one pathological proof or specimen; (2nd) because it divides the rectification equably between parts above and parts below the knee; (3rd) because it is directed against the deforming cause (epiphysal obliquity); (4th) because it leaves intact the integrity of the knee-joint; (5th) because it gives such excellent results.

I must beg space for a few words concerning Dr. Macewen's criticism of division of the fibula, which he prefers to break by manual force, explaining at some length that this bone does not articulate with the femur. Now, Sir, with this not very recondite anatomical fact I have been for some time acquainted; but fail to see what it has to do with the matter in hand. Dr. Macewen thinks so lightly of an antiseptic compound fracture ("six osteotomies were performed on one limb") that it is difficult to perceive on what ground he can object to division of this particular bone. I choose this method because I know of a case in the practice of an excellent surgeon in which forcible fracture was difficult, and accompanied by much bruising, and because I prefer to break the bone at a definite spot, which I can fix with certainty by a few touches with the chisel.

Your obedient servant,

RICHARD BARWELL.

George-street, Hanover-square, Jan. 17th, 1879.

"GARGET" AND DIPHTHERIA v. COMPARATIVE PATHOLOGY.

To the Editor of THE LANCET.

SIR,—I have read your report of the meeting of the Pathological Society, at which the relations between the various morbid conditions known to cowmen as "garget," and diphtheria, were discussed, and also the editorial remarks on the same subject in THE LANCET. I am indeed greatly surprised at the extremely meagre amount of knowledge displayed in the investigation of this supposed relationship, and am especially astonished at the way in which the researches of members of the veterinary profession are ignored in a matter to which such great importance was attached at the meeting above alluded to. It would almost appear that Messrs. Power and Smee had discovered a new bovine malady, and that there was something terribly mysterious and unfathomable about it. Mr. Power starts the alarming notion that certain serious and widely extended outbreaks of diphtheria in man may be due to this cowkeeper's "garget"; and yet, after expending considerable time and patience in attempting to trace the origin of these epidemics, he does not seem to have troubled himself to ascertain what we really know of "garget," or what it is. He confesses that he was only able to glean information from *non-medical* witnesses! Surely, in launching such a formidable hypothesis—one calculated to give rise to grave anxiety, or even panic, among the consumers of milk—such a competent member of the medical profession would have thought it necessary to learn all he could as to what this so-called "garget" is, and whether it was likely to be the real source of the diphtheria visitations.

And Mr. Smee does not appear to have made himself very well acquainted with the subject before bringing his paper before the Pathological Society; notwithstanding the fact that he instituted inquiries in different parts of the country, and obtained replies from a number of people whose evidence is so contradictory, and betrays so confused a notion as to what they were writing about, that one is forced to conclude that they also were *non-medical* witnesses. Seeing the mystification and confusion existing in the minds of the authors of the two papers read on Jan. 7th, and itself evidently no better informed, we can scarcely wonder that the Society should appoint five *medical* men to make inquiries into the nature &c. of this garget.

I would not, perhaps, have requested you to publish anything from me relating to a matter in which it is only too apparent that veterinary science is *de trop*, and its students ignored, had not Mr. Smee rather gone out of his way to assert that he soon found veterinary surgeons knew little of the subject, and that works on veterinary medicine contained very little information about the disease.

Those members of the veterinary profession in this country who have done their best in promoting the advancement of comparative pathology, have every and great reason to complain of the almost systematic manner in which their labours are neglected or ignored by the sister profession when the maladies of animals are under consideration. Heavily handicapped as it has been since its advent in this country, and receiving none of the encouragement, countenance, rewards, Government grants, or benefactions, without which human medicine would have made but little progress, veterinary science cannot yet show that its path is likely to be much cheered, or its burthen lightened, by the older sister, who has been so greatly aided and carefully nurtured by external influences.

The disease vulgarly known to cowmen and the Pathological Society as garget, and to pathological scientists as mammitis or mastitis, is one of the most frequent to which bovine animals are liable, and few maladies of animals have been more carefully investigated, or more often receive the attention of veterinary surgeons, notwithstanding Mr. Smee's assertion to the contrary. I do not know a work, English or continental, on veterinary surgery or cattle pathology, published during this century, which does not treat more or less fully of it, and few, indeed, that I am particularly acquainted with which do not contain more detailed and trustworthy information than is to be gleaned from Mr. Smee's paper. I therefore cannot think that that gentleman was serious in the statements he made as to veterinary surgeons and veterinary literature. If he was, then I can only say that the statements are not supported by facts. With regard to literature, I might give a long list of veterinary authorities who have studied and described the various forms of mammitis, but I will content myself with referring to chap. 9 of my work on "Veterinary Obstetrics," published more than a year ago, in which it will be seen that Mr. Smee's and your own assertions do do not fairly represent the case. With regard to the condition of the milk in mammitis, in addition to what I have said in the work just alluded to, I would also refer to my manual on "Veterinary Sanitary Science and Police," vol. ii., p. 579, art. "Inspection of Milk." And for a long report on a form of Infectious Mammitis in the Cow, I may call your attention to the *Veterinary Journal* (of which I am editor) for November, 1878, p. 335.

A perusal of the evidence therein adduced will testify that not only have the different kinds of mammitis been carefully observed and investigated by those who understand the diseases of animals, and are therefore alone competent to treat of them, but that this malady is far from being the trivial and imperceptible disease which Messrs. Smee and Power would have the public believe. That any of the forms of mammitis will produce diphtheria in animals—and especially sucking animals—there is not a tittle of evidence to show; and that diphtheria in the human species may be due to milk drawn from glands affected with mammitis is unsupported by facts of any kind. Ordinary mammitis is a common disorder all over the country—indeed, over the world, and large cowsheds are seldom free from it. Diphtheria is, comparatively, and fortunately, a very rare disease. Even during outbreaks of infectious mammitis, some of which have been extensive and serious, and have continued for a long time, no unusual disorders have been reported as appearing among the people who consumed the milk in the localities in which it was distributed. And in the outbreak recorded by Mr. Power there is all but everything wanting to establish any connexion between mammitis and diphtheria. What he gives is even less than a mere coincidence, and it is to be regretted that the epidemic should be publicly ascribed to the milk without better and, indeed, the clearest evidence. Much needless alarm is

excited, and sanitary science is certainly not benefited, by the promulgation of such unsubstantial hypotheses.

Some years ago you allowed me to draw attention to the very unsatisfactory position of comparative pathology in these islands, and the injury medical science, no less than the public interests, suffered thereby. Since that time the position has not been improved, so far at least as the medical profession is concerned; and I think I may say, from personal knowledge, supported by such examples as the Pathological and other Medical Societies, as well as medical literature, at times afford, that in no country in Europe do medical men, as a rule (there are, of course, exceptions), know less of the diseases of animals than in our own, and this absence of knowledge exposes them to inconvenience and even ridicule. That a body of medical gentlemen of such acknowledged ability as those who compose the Pathological Society should know nothing, or next to nothing, of a very ordinary and frequent disease affecting the lacteal apparatus of an animal which stands in such close relationship to man as a food-producer, and that it should depute five of its number, who can know but little of animal disorders, to investigate the malady, may well provoke a smile in the ranks of such an assembly, for instance, as the Paris Academy of Medicine, where the value of comparative pathology is understood, and where Bouley, Larcher, Leblanc, and other veterinarians, take their place as members and authorities in their own special department of science.

On behalf of medicine, human and animal, may I not ask if the time has not arrived when that harsh and inflexible barrier behind which medical men in this country, as a body, have so long fixed themselves, to their great detriment, be thrown down, and the claims of comparative pathology to recognition be admitted? Surely, if physicians and surgeons will discuss the diseases of animals, especially in relation to the public health, they should possess some knowledge of these diseases! The wide chasm which has hitherto been allowed to separate human and animal medicine in Britain must be bridged some time or other. Why not now? I do not know of a Continental university which does not have a chair of Comparative Pathology; there is nothing of the kind with us. If a knowledge of natural history, zoology, or comparative anatomy is considered necessary for medical students, and if our universities and medical schools have chairs for instruction in these subjects, it is surely of far greater moment that they should have chairs of comparative pathology—a subject of daily increasing importance. Establish these chairs, recognise the fact that human and animal pathology are but sections of one great subject, and soon we shall be spared the appointment of committees to investigate animal disorders; the composition of these committees reminding one of the tragedy of *Hamlet* minus the King of Denmark, and such unproductive discussions as we are now familiar with in medical societies. I cannot see any reason why medical men in this country should not be as well acquainted with comparative pathology as their Continental *confrères*, nor yet why they should ignore the fact that there are students of veterinary science who can claim a right to be heard in defence of that science. Medical men in England can well afford to be unselfish and the opposite of ungenerous. That they sometimes appear severely conservative and narrow-minded towards these students is possibly due to misapprehension and a desire to keep all medical knowledge in their own hands.

I do sincerely trust that you, Sir, will lend your aid in promoting a knowledge of comparative pathology in our medical schools. This knowledge is sadly needed, and there is no reason why it should be denied the votaries of medicine.

I have the honour to be, Sir, yours most obediently,

GEORGE FLEMING, F.R.C.V.S.,
2nd Life Guards.

January 21st, 1879.

NEW VIEWS ON ADDISON'S DISEASE.

To the Editor of THE LANCET.

SIR,—In THE LANCET of the 18th inst., under the heading of "New Views on Addison's Disease," you have unwittingly misinterpreted my views as expressed in a recent paper read before the Glasgow Medico-Chirurgical Society; perhaps from my not having expressed myself with sufficient clearness, or from your only having had access to an epitome of my paper, a copy of which I now enclose.

Allow me, therefore, to explain that I advanced no new views as to the pathology of Addison's disease, but accepted those propounded by Dr. Greenhow in his able work on that disease. Indeed my principal object in bringing forward the case was to show the remarkable improvement which followed upon treatment based upon these views of its pathology, and I am glad to be able to add that, since the meeting, the improvement has been still more pronounced.

Then, as regards alopecia areata and vitiligo, all I suggested was, not that there was any connexion between these affections and Addison's disease, but only that the discoloration of the skin in Addison's disease was, like the symptoms in the other two affections, probably the result of perverted function of the sympathetic. This will be apparent from one of the closing sentences of the paper, in which I say, "Of course, I do not mean to say, nor do I suppose, that disease of the supra-renal capsules has anything to do with the production of vitiligo or of alopecia areata, but simply that a somewhat similar perversion of the function of the sympathetic nerve lies at the root of all three."

Yours faithfully,

Glasgow, January 20th, 1879. T. MCCALL ANDERSON.

PARIS.

(From a Correspondent.)

THE creation of two new chairs at the Paris Faculty of Medicine has occasioned certain changes in that body. Dr. Parrot has been authorised to exchange the chair of History for that of Children's Diseases, and Dr. Panas has been presented unanimously for that of Ophthalmology. It is a privilege of the Minister of Public Instruction to nominate upon his own responsibility the holder of any newly created chair without consulting any constituted body. This right has been practically waived in almost all the nominations made during the last twenty years. It is not, however, obsolete, and Professor Robin, in 1862, was in this manner appointed to the then newly created chair of Histology. On that occasion the Faculty was not consulted, and might again be ignored should a new minister arise holding views less favourable to the maintenance of its rights than the present occupant. M. Bardoux is, in fact, of all the ministers who have filled that post, the one who has lived on the most friendly terms with the medical body at large, and more especially with the Paris Faculty. At the banquet offered to him in the *Salles des Thèses*, he delivered a most eulogistic speech in its favour in reply to the address of the Dean. He has also promised to create another new chair of Dermatology and Syphilis, which will probably be bestowed on Dr. Fournier, the author of several well-known works on syphilis and kindred diseases.

It may be interesting to the readers of THE LANCET to know that an important prize is open to public competition. The *Prix Lacaze*, as established by the testator, was biennial, and amounted to £400. It was destined to the author of the best paper upon pulmonary consumption or typhoid fever, the subject of competition being on one occasion consumption, and on the next typhoid, and so on. The prize not having been awarded two years ago, the £400 has been capitalised, and the sum now at the disposal of the judges amounts to £428. Should the prize be withheld again this year, the same process will be repeated and its value will approach £500. It may be well to English physicians to know that any publication bearing on either of the subjects mentioned may be sent in for competition if previously translated into French, but the large amount of the pecuniary reward leads the Faculty to expect original merit in the papers submitted to its judgment.

A commission has been appointed solely for the purpose of nominating the head physician of Charenton a position of high importance and honour, the emoluments of which amount to £400 a year; but the proposal to award these positions through competitive examinations has by no means fallen to the ground; the arrangements would, however, only be applied to the physicians of Bicêtre and Salpétrière. These establishments, which belong to the Assistance Publique, are somewhat different in their organisation from other lunatic asylums, such as Vaucluse, Charenton, and Ville-Evrard. My limits will not allow us to give an account of the present legislation in France concerning

lunacy, and its bearings upon the medical profession; suffice it to say that this organisation, resting as it does upon the well-known law of 1838, is manifestly imperfect in various points, and will probably be modified ere long by a new interference of the legislative power.

Another point which will probably engross the attention of our legislators during the present session, should political warfare leave them sufficient leisure, is the improvement of the laws which concern the practice of medicine, and the repression of intruders. At present the illegal practice of medicine subjects the offender to a fine of £2 and a short imprisonment; and the constant interference of clerical corporations, coupled with that natural love of the marvellous which is inherent to human nature, has fostered the growth of a host of abuses, which it is high time to eradicate. Former governments have seen and acknowledged the necessity of a reform in our medical legislation which dates from beyond the present century; but, unfortunately, whenever a proposal of this kind was brought before the Houses, a revolution took place, and the minds of men were violently hurried away from the consideration of these minor subjects.

The exhibition of Professor Charcot at the Salpétrière has again been brought prominently before the public, and after having been lauded in the aristocratic *Figaro*, the Professor now obtains a similar tribute from the democratic *Rappel*, so that right and left, clerical and republican, all the papers agree in trumpeting his glory. The most offensive of these publications is, however, that which appeared in the last number of a well-known scientific paper, *La Nature*. In this article the author, not satisfied with the labours of his pen, uses his pencil to delineate the learned Professor in the attitude of a conjuror, mesmerising his patients and looking with an inspired air at the public.

Obituary.

DR. GURNEY,

OF NICE.

WE regret to announce the death of Dr. Gurney, of Nice, one of the longest established and most eminent of the English physicians practising on the Continent.

After five years' apprenticeship, and four years' attendance at the Stamford and Rutland County Infirmary, Henry Cecil Gurney studied at St. Thomas's Hospital from 1841 to 1843, when his health became delicate, and being threatened with consumption, he was advised to reside in the south. After a travelling engagement, he repaired to Pisa, where he completed his medical education, and took the degree of M.D. of that university in 1845. In the summer of 1846 he was at the baths of Lucca; and in 1847 he established himself at Nice, and continued to practise there during the winter seasons ever after, except on a few occasions, when ill-health compelled his absence. His summer months were passed, first at Ryde in the Isle of Wight, but latterly, and more generally at Geneva.

In 1853 Dr. Gurney became a Fellow of the Royal College of Physicians by examination; and in 1859 he was elected member of the Royal College of Physicians of London.

The professional skill and success of Dr. Gurney brought him a large number of patients, many of whom were made warm friends by his kind-heartedness and christian sincerity, notwithstanding some occasional roughness of manner and susceptibility of temper, arising from weakly health and a highly nervous temperament. Of late years a chronic lung affection (old partial consolidation and emphysema), together with weakness of heart, had impaired his activity; yet, impelled by the claims of a very large family, he continued his work till the 9th instant, when, after visiting several patients at a late hour, he got a chill, followed by congestion of the lungs, with disordered action of the heart, first strong and rapid, then irregular and feeble, which carried him off on the morning of the 13th, in the sixtieth year of his age. Being in the habit of managing his own health, he called in no one till two days before his death, when he sent for Dr. Thaon, of Nice, who most kindly and assiduously attended him to the last. He was also visited by his friend, Dr. C. J. B. Williams, of Cannes, who, on repeating his visit on the 13th, arrived too late to see him alive.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on the 20th inst.:—

Benington, R. Crewdson, L.S.A., Peckham.
Bridgeford, W. A. Saunders, Sheffield.
Childs, Christopher, L.R.C.P., Uppingham, Rutland.
Davies, D. Samuel, L.S.A., Bristol.
Deakin, James, L.S.A., Sale, Cheshire.
Hicks, F. John, L.S.A., Oxford.
Hughes, T. Montgomery, L.S.A., Bucknall.
Jones, F. Felix, L.S.A., Llanfyllin.
Leftwich, C. Harcourt, Tufnell-park.
Lucas, Charles, L.S.A., Burwell, Cambridge.
May, T. Henry, M.D. Dub., Dover-street.
Rigden, Brian, Canterbury.
Russell, G. Hannah, Helston, Cornwall.
Shaw, William, M.B. Edin., Brosely, Salop.

The following gentlemen passed on the 21st inst.:—

Alban, Evan, L.S.A., Aberayron, North Wales.
Batty, W. E. Latham, L.S.A., Birkenhead.
Cheshire, A. Edwin, Birmingham.
Collington, J. Wheler, L.R.C.P., Merrick-square.
Colt, T. Archer, Torquay.
Cox, L. Frederick, Bangor, North Wales.
Dismorr, Henry, L.S.A., Gravesend.
Gwynn, C. Henry, M.B. Edin., Whitechurch, Salop.
Harrison, Arthur, L.R.C.P. Edin., Sheffield.
Jones, H. Parry, Rhos, Denbighshire.
Martin, Theodore, Evesham.
Morley, E. John, L.R.C.P. Lond., Blackburn.
Riley, J. Woodward, Birmingham.
Robinson, Frederick, Ilkley, near Leeds.
Saunders, William, L.S.A., Stockton-on-Tees.
Smith, W. Harvey, Redditch, Worcestershire.
Taylor, W. Marshall, Newcastle-on-Tyne.
Thomas, W. Frederick, Madras.
Ward, G. James, Maida-vale.
Welch, S. Aaron, Kinver, Staffordshire.
Young, W. H. Frome, Brighton.

The following gentlemen passed on the 22nd inst.:—

Addison, W. Henry, Natal, Africa.
Bickerton, T. Herbert, Liverpool.
Bourns, N. Whitelaw, Oxtead.
Butler, G. Henry, Hobart Town.
Chillingworth, Andrew, Maldon.
Corder, S. Ransome, L.S.A., Ipswich.
Cotton, Charles, L.R.C.P. Edin., Foulis-terrace, S.W.
Da Salva, P. Manoel, L.S.A., Bombay.
Francis, William, Eastbourne.
Hartley, John, Buntingford.
Holbeche, A. Oliver, Sutton Coldfield.
Hoole, Henry, L.S.A., Gunnersbury.
Landon, Edward, L.R.C.P. Edin., Oxford.
Marsh, W. Aspinall, Hindley, Lancashire.
Roper, Edwin, North-end, Croydon.
Seager, H. West, St. George's-square.
Smith, E. Frederic, Torpoint, Devonport.
Watkins, S. Collings, Norton Folgate.
Woollett, S. Winslow, L.S.A., Chigwell, Essex.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 16th inst.:—

W. M. M'Queen Clapp, University College and Westminster Hospital; Joseph Harrison, Leeds; C. T. Duce, Birmingham; A. Bolton, Guy's Hospital; W. H. H. Jessop, Cambridge and St. Bartholomew's Hospital; P. A. D. Head, J. W. Payne, and L. T. Ward, London Hospital; G. Medcalf, A. A. Carr, and E. H. Locker, University College; F. E. Roberts, St. Mary's Hospital; R. E. Durell, King's College; J. E. Smith and H. A. Barnes, Charing-cross Hospital; G. M. H. Colman, Cambridge and St. Thomas's Hospital; E. F. White, St. Thomas's Hospital; H. A. J. Raymond and W. Gripper, St. Bartholomew's Hospital; A. W. Vines, Westminster Hospital.

Of the 149 candidates examined during the past fortnight, 41 failed to reach the required standard, and were referred—35 for three and 6 for six months' further anatomical and physiological study.

APOTHECARIES' HALL.—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 16th:—

Corder, Sheppard Ransome, St. Margaret's, Ipswich.
Hague, J. Thompson, Kingston House, Southampton
Shaw, John, Richmond-terrace, Clapham-road.

The following gentlemen on the same day passed the Primary Professional Examination:—

Wm. Drysdale Tennant and Arthur Verco, St. Thomas's Hospital.

As an Assistant:—

Philip Smith, London.

COLLEGE OF PHYSICIANS IN IRELAND. — At the January examinations the following obtained the licences in Medicine and Midwifery:—

MEDICINE.—Augustus John Richard Llewellin, Patrick James Barry O'Shaughnessy, Andrew Colquhoun Thompson.

MIDWIFERY.—Henry Blackett Forster, Joseph Gibson, Robt. Gordon, John Reid Johnston, Patrick James Barry O'Shaughnessy, Andrew Colquhoun Thompson.

TWENTY-SEVEN deaths were registered last week in Dublin from small-pox.

DR. JOHN J. D. BURNS has been placed on the Commission of the Peace for the City of Rochester.

THE Guardians of the North and South Dublin Union have recently passed a resolution, requesting the Local Government Board for Ireland to institute an official inquiry into the causes of the excessive death-rate of Dublin.

THE annual rate of mortality in London last week was 28·1 per 1000. The deaths numbered 1947, and included 12 from small-pox, 18 from measles, 44 from scarlet fever, 7 from diphtheria, 67 from whooping-cough, 27 from different forms of fever, 13 from diarrhœa, and 664 from diseases of the respiratory organs. One death, that of a student aged nineteen, is described in the Registrar-General's Return as due to "Narcotic poisoning, produced by smoking opium; misadventure."

MATER MISERICORDIÆ HOSPITAL, DUBLIN.—We understand that Mr. Kilgarriff has been selected to succeed the late Mr. Tyrrell at this hospital. It was stated last week by mistake that Drs. Mapother and O'Leary, of St. Vincent's Hospital, had applied for the vacant surgeoncy.

SUNDERLAND PROVIDENT DISPENSARY.—The following have been appointed medical officers—viz., Hugh Blyth Allan, L.F.P.S. Glasg.; James Berwick, L.R.C.P. Edin.; Mordey Douglas, L.R.C.P. Edin.; Harry Drinkwater, M.B., C.M.; William Osborne Lambert, M.D. St. And.; Edward Pilkington, M.R.C.S. Eng.; James Waterston, L.R.C.S. Edin.; Percival Humble Watson, L.R.C.P. Lond.; and James Wilson, L.R.C.P. Edin.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A Quarterly Court was held on Jan. 8th, Edward Tegart, Esq., V.P., in the chair. A sum of £1267 was voted for distribution among fifty-eight widows, eleven orphans, and three orphans on the Copeland Fund. The expenses of the quarter were £70 18s. 3d. The secretary stated that he had received applications from two widows and one orphan, but as the proper forms had not as yet been returned, the cases could not then be considered. One member was elected, and the deaths of four members reported.

CORK-STREET FEVER HOSPITAL, DUBLIN.—The number of patients admitted to this institution for some time past, in consequence of the prevalence of small-pox and other contagious diseases, has exhausted the funds, and the governors have recently appealed to the public for help to maintain the present inmates and to meet the increased demand for admission. They state that unless immediate assistance is given they must close the hospital against applicants; but we sincerely trust that such a misfortune may be prevented, and that the response to the appeal may be prompt and generous.

Medical Appointments.

BARTLETT, F. P., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Bristol Hospital for Sick Children and the Out-door Treatment of Women, vice Guy, appointed Physician's Assistant to the Bristol General Hospital.

BROCK, W. K., M.R.C.S.E. & L.M., L.S.A.L., has been appointed Medical Officer to the Fulham Union Workhouse, vice Blackmore, resigned.

BURROUGHS, E. F. H., L.R.C.S.I., L.A.H.D., has been appointed Medical Officer for the No. 4 or Nunney District of the Frome Union.

COATES, H., L.R.C.P.L., M.R.C.S.E., has been appointed a Medical Officer to the Salisbury Provident Dispensary.

DIXON, J., M.R.C.S.E., L.S.A.L., has been appointed Honorary Consulting Surgeon to the Brighton and Hove Dispensary, vice Branwell, deceased.

EDGAR, J. W., M.D., C.M., has been appointed Medical Officer for the Settle District and the Workhouse of the Settle Union, vice Green, resigned.

EMMERSON, W. L., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Waltham District of the Melton Mowbray Union, Medical Officer of Health for the Waltham Sub-district of the Melton Mowbray Rural Sanitary District, and Medical Officer to the Stanley Medical Aid Society.

HARRIS, V. D., M.D., M.R.C.P.L., has been appointed an additional Assistant-Physician to the City of London Hospital for Diseases of the Chest.

HOPKINS, H. C., L.R.C.P.Ed., M.R.C.S.E., & L.M., has been reappointed Medical Officer to the Western Dispensary, Bath.

HUGHES, R. L., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Kilcock Dispensary District of the Celbridge Union, co. Kildare, at £100 per annum and fees, and £15 per annum as Medical Officer of Health, vice Coyne, resigned.

KELSEY, A., M.R.C.S.E., L.S.A.L., has been appointed Certifying Factory Surgeon for the Redhill District.

MEREDITH, J. E., M.B., has been appointed Certifying Factory Surgeon for the Maidstone District, vice Owens, resigned.

MORRIS, J., M.R.C.S.E., L.S.A.L., has been appointed an Honorary Surgeon-in-Ordinary to the Brighton and Hove Dispensary, vice Dixon, resigned.

ORMEROD, J. A., M.B., M.R.C.P.L., has been appointed an additional Assistant-Physician to the City of London Hospital for Diseases of the Chest.

ROBERTSON, J. G., M.B., C.M., has been appointed Resident Medical Officer to the Gateshead Dispensary, at £210 per annum and furnished apartments, vice Taylor, whose appointment has expired.

ROSE, F. O., M.B., L.R.C.S.I., & L.M., has been appointed House-Physician to the Hospital for Women, Soho-square, vice Coley, resigned.

ROWE, G. H., M.R.C.S.E., has been appointed House-Surgeon to the Worcester General Infirmary, vice Wilding, resigned.

SANCTUARY, T., M.B., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Western District of the Redruth Union, Cornwall, vice Vawdrey, resigned.

SHANAHAN, J. F., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Attendant to the Royal Irish Constabulary, Adare and Killiney, co. Limerick, vice Peirce, resigned.

THOROLD, E. F., M.D., has been appointed a Physician to the Plymouth Public Dispensary, vice Littleton, deceased.

WALSH, J. J., L.R.C.P.Ed. & L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Ardfinan Dispensary District of the Clogheen Union, at £110 per annum and fees, and £15 per annum as Medical Officer of Health, vice Stafford, deceased.

WAYLEN, G. S. A., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Devizes Rural Sanitary District, at £100 per annum, vice the Poor-law District Medical Officers, whose appointments have expired.

Births, Marriages, and Deaths.

BIRTHS.

BENNETT.—On the 16th inst., at King-street, Cork, the wife of R. D. Bennett, L.R.C.S.I., Surgeon, Army Medical Department, of a daughter.

FLEMING.—On the 18th inst., at Albany-place, Glasgow, the wife of William James Fleming, M.B., of a son.

KENNEFICK.—On the 12th inst., at Auburn, Clonmel, the wife of John S. Kennefick, L.K.Q.C.P.I., of a son.

MURRAY.—On the 17th inst., at Scarborough, the wife of J. Ivor Murray, M.D., of a daughter.

YOUNG.—On the 14th inst., at Rose-bank, Merton-road, Bootle, the wife of Thomas Frederick Young, L.R.Q.C.P.I., of a son.

MARRIAGES.

FAIRCLOUGH—BENNETT.—On the 16th inst., in the Parish Church, Mirfield, by the Rev. J. P. Foster, Vicar, assisted by the Rev. William Fowler, Thomas R. Fairclough, Surgeon, to Mary E. Bennett; both of Mirfield.

MOORHEAD—DIBBEN.—On the 9th inst., at Holy Trinity, Bournemouth, John Moorhead, M.D., to Harriette Fanny, daughter of H. Dibben, Esq.

DEATHS.

BRUCE.—On the 15th inst., at Dunimarle, Culross, William Bruce, M.D. Deputy Inspector-General of Hospitals and Fleets (Retired List), aged 85.

BYASS.—On the 9th inst., at Rayleigh, Essex, James Byass, L.S.A.L. aged 81.

COATES.—On the 13th inst., at Micklegate, York, William Coates M.R.C.S.E., aged 71.

HAIRE.—On the 10th inst., at Portland-place, Gosport, John Hilary Haire, M.R.C.S.E., Staff-Surgeon R.N. (on the Retired List), aged 61.

HENDERSON.—On the 13th inst., Joseph Henderson, L.F.P.S.G. (of Deptford), aged 52.

MCDONALD.—On the 4th inst., at Dundee, James McDonald, L.F.P.S.G., aged 53.

ROBINS.—On the 14th inst., at Butley-heath, William Robins, L.S.A.L. (formerly of Oxford-terrace, Paddington), aged 65.

WILDBORE.—On the 15th inst., at Walthamstow, Daniel Peacock Wildbore, F.R.C.S.E., aged 66.

WOOD.—On the 30th ult., on board the steamer *Durban*, on the passage from South Africa to England, William T. H. Wood, L.R.C.P.Ed.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.*

BOOKS ETC. RECEIVED.

J. Hutchinson: Illustrations of Clinical Surgery. Part XIII.
Dr. W. J. Russell: Domestic Medicine and Hygiene.
Dr. H. Day: Ozone in Relation to Health and Disease.
Dr. J. Rigler: Ueber die Folgen der Verletzungen auf Eisenbahnen.
Dr. Newman: History of the Stamford Infirmary.
Dr. M. G. Escheverria on Nocturnal Epilepsy and its Relations to Somnambulism.
Dr. M. G. Escheverria: De la Trépanation dans l'Epilepsie par Traumatismes du Crâne.
H. Strickland Constable: Fashions of the Day in Medicine and Science.
P. Shepherd: Handbook describing Aids for Cases of Injuries or Sudden Illness.
C. M. Buckton: Food and Home Cookery.
Report on the Exhibits connected with Materia Medica, Pharmacy, Chemical Industry, &c., at the Paris Exhibition.
Transactions of the American Otological Society. Vol. II., Part II.
M. Creighton: The Shilling History of England.
Dr. K. N. Macdonald: Historical Sketch of Medicine from the Earliest Times.
Dr. F. Hood: A Treatise on Gout and Rheumatism.
The Westminster Review.
Revue des Sciences Médicales. No. XXV.

Notes, Short Comments, and Answers to Correspondents.

TRANSFUSION: MILK *versus* BLOOD.

DR. JOSEPH HOWE, in the course of five weeks towards the close of last year, transfused nine times at the Charity Hospital, New York. All the patients were suffering from advanced phthisis and syphilis, having been selected from the worst cases entering the institution, and were supposed to be beyond the reach of ordinary therapeutical measures. Into the first subject was transfused three and a half ounces of milk. Alarming symptoms were at once developed, but subsequently disappeared, and the general condition of the patient seemed to improve for a short time. The second case was transfused by means of the aspirator with undefibrinated blood mixed with ammonia. Dizziness, dimness of vision, and pain in the chest, with increased rapidity of pulse, occurred during the operation. Remarkable improvement, however, followed, the syphilitic ulcers from which the patient had been suffering healing over, with increase of strength and appetite. A second operation was made on the same patient a fortnight later with defibrinated blood, which was characterised by an absence of the distressing symptoms observed the first time. There was again great improvement. In the third case transfusion was performed twice with defibrinated blood mixed with ammonia. Marked amelioration followed each transfusion, and the patient was brought into an "excellent condition." In the fourth case little or no improvement followed. In the fifth case (patient moribund) there was no bad symptom, but death ensued on the fourth day. In the sixth case the patient improved. The seventh patient was *in articulo mortis*. Five and a half ounces of defibrinated blood mixed with ammonia were injected. The subject rallied for some hours, but died the next day. Dr. Howe is satisfied that transfusion of blood may be performed in the most extreme cases without danger; he insists, however, on the paramount necessity of defibrinating it thoroughly, mixing it with ammonia, and using "Colin's" instrument. Transfusion of milk, on the other hand, is strongly deprecated, and considered to be justifiable only when blood cannot be obtained.

Mr. Oxley.—The paper will be inserted as soon as an opportunity offers.

THE PROPHYLACTIC TREATMENT OF POST-PARTUM HÆMORRHAGE.

To the Editor of THE LANCET.

SIR,—Dr. Richard Neale has very courteously reminded me of Dr. Bassett's paper, read before the Obstetrical Society of London, on the Propriety of Administering Iron during Pregnancy as a Preventive of Post-partum Hæmorrhage. A very brief summary of the paper appears in THE LANCET for May 30th, 1874. I could not help thinking that some one had written on this point; but I did not know where, and I forgot to refer to Dr. Neale's famous Digest. Dr. Neale also refers me to a paper by Dr. Egan on Gallic Acid, given in the same way. The ground covered by Dr. Bassett and Dr. Egan seems, however, rather limited, and it was my desire to take a wider survey of a subject which has been very little discussed. Yours &c.,

Bath, Jan. 21st, 1879. JOHN K. SPENDER, M.D.

Inquiring Mind.—The only lawful claim to place a cockade on the hat of a servant arises out of the fact of his master being in Her Majesty's service.

Mr. Hinston.—Patent medicines are not recognised by the profession.

THE WOUNDED IN PEACE.

THE St. John Ambulance Association, under the active direction of Major Duncan, R.A., is doing admirable work in the prospective interests of the wounded in war. Would it not be practicable to extend the service, and augment the obligation, by instructing the police and other public functionaries, or, in fact, anyone willing to learn, in the readiest and least mischievous modes of handling and transporting those unfortunate persons who from time to time fall down in fits, or are knocked over and injured in the streets of London? The number of accidents in public thoroughfares and places of resort in the course of a year is very considerable, and it would be consolatory to the victims to meet with even a little of the kind and skilful treatment which is reserved for the wounded in war. Part of the instruction given under the guidance of Major Duncan relates to the lifting and carrying of men who are struck down in situations where help is difficult and appliances cannot be used. As much as may be suitable of this information would be advantageous to the police and the public, who at the present moment are wont to fulfil the impulses of their humanity in a fashion by no means conducive to painless or complete recovery from the most ordinary accidents. A broken leg, collar-bone, or rib, is likely to receive treatment intensely aggravating to the sufferer, besides being often exquisitely painful in his sensitive condition. A little knowledge of the best way to handle injured bodies would not be without its use in the hunting field. In short, there are few walks in life free from misadventure, and such skill as this Society is able to impart would be welcome to all classes. In the case of the police, training ought to be enforced.

D. C. C.—The mode of return seems irregular; but it is impossible to criticise with a view to amend paragraphs in lay newspapers.

Respirator.—Mr. Mather, Farringdon-road, London, E.C.

TREATMENT OF DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—I have read with much interest the letters on diphtheria which have appeared in THE LANCET during the past few weeks. That the use of iron is one of the best remedies in this disease and in many other affections of the throat is, I think, now almost universally received. A powerful antiseptic, without its being too corrosive in its action, is what is required as a local application in diphtheria.

I have found the following course of treatment to be very beneficial: On the first appearance of any signs of diphtheria I immediately order the throat to be thoroughly swabbed with a paint, composed of carbolic acid, one drachm; sulphurous acid, three drachms; solution of the perchloride of iron and glycerine, of each half an ounce. Internally I give iron in large doses, with chlorate of potash and spirits of chloroform, every three hours. I also order plenty of beef-tea, port wine, &c., from the commencement.

During the past week I have had two cases under my care. In one I saw a well-marked diphtheritic patch on the right tonsil at the commencement of the attack. I used the paint as described above, and the disease was checked at once. In the other the disease had spread over the greater part of the fauces and back of the pharynx, and by night the throat was almost blocked up. In this case I used the paint frequently, and by the fourth day the exudations had disappeared. I may add that in every case in which I have adopted this plan of treatment the patients have experienced great relief after each application of the paint.

Your obedient servant,
CHARLES SCOTT KILNER, M.B. Edin.

Bury St. Edmunds, Jan. 14th, 1879.

To the Editor of THE LANCET.

SIR,—Mr. Hicks is certainly to be congratulated if in the course of twenty years' experience he has never seen a case of diphtheria, treated as he suggests, and fatally. I can hardly suppose that to be the experience of most general practitioners, neither can one imagine as a cause the non-compliance with any one form of treatment. Has he never met with a case which seems to kill outright by the virulence of the poison itself, apart from the mere throat symptoms; nor one where the membrane extends down the trachea, instead of expending itself on the tonsils and soft palate; nor one where sudden death may take place on the patient getting out of bed—embolism? Would that I could give a negative answer. In all zymotic complaints, with regard to prognosis, one must remember the two distinct stages, the one hidden from observation (that of incubation), and the later one, which alone practically comes under our treatment; and if we are armed with a so-thought specific we are so apt to leave out of our calculation the effects of the first stage. With Mr. Hicks's general outline of treatment I most thoroughly concur, and know from use the very beneficial effects of the remedies mentioned. I myself generally add carbolic acid both internally and as an inhalation with steam; but until we know much more about the unseen, and to a great extent unfelt and silent, stage of these diseases, I can never bring myself to meet a case of diphtheria with "happy confidence." Your obedient servant,

Crouch-end, N., Jan. 18th, 1879. F. ORTON, M.D.

Sigma.—The facts are very serious and discreditable, if not illegal. It is unfortunately not illegal for an unqualified person to attend midwifery cases. But for a qualified surgeon to associate his name with that of his unqualified assistant in a medical certificate of the cause of death in a case which he has never seen, but which has been attended entirely by the said assistant, and for the certificate to be signed by both parties as "surgeons," seems distinctly illegal.

Alpha.—We have no recollection of the formula referred to.

EXTRA-UTERINE PREGNANCY.

AT a meeting of the New York Academy of Medicine, held on the 21st of November last, a report of the History of Six Cases of Abdominal Pregnancy was presented by Dr. Gaillard Thomas. Five cases were operated on, and the patients recovered, whilst the sixth case was still under observation. Dr. Thomas's experience extended to fifteen cases of extra-uterine pregnancy, of which seven were tubal, two interstitial, and six abdominal. In the third of the six cases described, laparotomy was performed at the end of the eleventh month of gestation, with recovery of the mother; in the fourth case at the end of seventeen months, with recovery of mother; and in the fifth case, after a pregnancy of twenty-two months, with recovery of mother. The following rules for guidance in cases of this class were given:—Before the full time, if the child is alive, its growth should be carefully watched, with the hope of being able at the end of the ninth month to deliver by the operation of laparotomy a living child, and also of saving the life of the mother. Should the child die early in abdominal pregnancy, delay is advisable, but it should not be carried to the development of hectic and septicæmia. At full term it is best to await the evidence of constitutional disturbance, and then to operate promptly. In the discussion which ensued after the reading of the paper, Dr. Fordyce Barker expressed his belief that the success which would be obtained hereafter by adherence to two principles—viz., leaving the placenta undisturbed, and adopting a "judicious" antiseptic treatment—would revolutionise the statistics hitherto accepted in cases of abdominal pregnancy.

Alpha.—There is, we believe, a University of Malta, which gives medical degrees or diplomas. Such degrees are not recognised in England. Medical education in Malta consists largely in pupilage. Our correspondent would get full information, we doubt not, from Dr. G. Pisani, of Malta.

Dr. John Lowe's communication shall appear in our next impression.

SUSPENSION IN THE TREATMENT OF POTT'S DISEASE OF THE SPINE.

To the Editor of THE LANCET.

SIR,—In a communication to THE LANCET on the Treatment of Pott's Disease of the Spine, Dr. Walker has described his method of applying the plaster-of-Paris jacket when the patient is placed in the recumbent position. Dr. Walker claims for his plan of procedure that it gives all the advantages of Sayre's method, and avoids the serious dangers and inconveniences of suspension. He believes, too, that he will be supported by the majority of English surgeons in the opinion that suspension of the patient is a part of Sayre's treatment which it is desirable to avoid. Judging from the opinions of those who took part in the discussion of this subject at a recent meeting of the Medical Society of London, I am inclined to think that Dr. Walker is over-confident in claiming for his views general acceptance by the profession; but, be this as it may, I would ask what are the serious dangers to which he so mysteriously alludes? It has been rumoured that grave results have attended upon this method of extending the spine. I say "rumoured," as I have received no authentic information on the subject; but if mischief has been done by suspension, I am convinced that this arose from want of proper care in conducting the process. I have suspended patients of all ages and with all conditions of disease without the least sign of a mishap. Every new method of surgical treatment has to stand the test not only of those who carry out the design of its originator faithfully, but of those who disregard or neglect to acquaint themselves with the proper course of procedure. When going through the wards of a hospital, not long after Dr. Sayre's visit to this country, I saw in one of them a little child suspended by the head, hanging in mid-air, kicking, struggling, crying to the very best of his ability, and manifestly not altogether enjoying himself. This I was informed was Sayre's method of treating Pott's disease, and that the child was then taking his daily exercise, three times up and down again. I suggested that daily suspension was advised for lateral curvature, and not for Pott's disease, and was fortunately able to convince my friend of this truth by reference to Sayre's work. Now, had this gentleman continued to misapply suspension, he would, no doubt, before long have been convinced of the serious dangers attendant upon its use. There are very few surgical processes which may not be productive either of a good, a negative, or a bad result, the effect produced depending partly on the nature of the case, greatly on the method of conducting the operation. So with suspension; in some cases of Pott's disease it is useless; in the great majority it is of much value; in all it may be made the means of doing serious harm.

Dr. Sayre insists forcibly on the necessity of conducting the process of suspension with all possible care. His direction is: suspend until the patient says he is comfortable, and never beyond that point. To take the feelings of the patient as a guide in conducting suspension is not always practicable, for the reason that children are frequently frightened, and their alarm is too great to allow them calmly to review their condition, and inform the surgeon whether or not they derive benefit from the process to which they are being subjected. It is necessary, therefore, to rely upon one's own judgment, and, remembering the results that it is desired to obtain, to act in accord therewith. The object of suspension is to extend the spine, and thus separate the surfaces of the diseased vertebræ, to relax muscular contraction, and to place the diseased column as far as possible in its normal condition; the extension is obtained by throwing upon the spine the weight of the body below. It is evident, then, that directly the feet are drawn off the floor, the greatest effect possible is produced. The patient may be dragged up to the ceiling; but no more extension of the spine will be caused than if he is just kept clear of the ground. Again, the higher in the column disease is situated, the greater will be the force brought to bear upon the affected portion of the spine. Greater power is exerted when disease is situated at the fifth dorsal than when at the third lumbar vertebra, and the difference will be just as many pounds more as is the weight of that portion of the body between the two vertebræ. Moreover, the power will vary according to the age of the patient, for the reason that the younger the child the less are the lower extremities developed in proportion to the rest of the body; thus a child of nine years of age with disease of the tenth dorsal vertebra will be proportionately heavier below that point than a child three years old. In no case is it necessary to draw the patient quite off the ground. Generally it is sufficient to draw him up until the heels are just raised. In very young children, and in cases where the spine is affected towards its lower extremity, it is as well to extend until the heels are raised about one inch. Suspension should be conducted very slowly, and, when possible, by the head alone; but for adults, and children with extensive disease in the upper region of the spine, the axillary bands should also be used.

Conducted carefully, and with observance of the above precautions, suspension cannot possibly do harm, and I could, if space permitted, bring forward abundant evidence to prove its value in the treatment of Pott's disease. Undoubtedly this part of Sayre's treatment is not to be discarded because those who have misapplied the process have thereby obtained unfortunate results, or because others, believing it to be useless, or perhaps fascinated by some other method of their own contrivance, have hastily condemned it without a fair trial of its capabilities.

I am, Sir, yours obediently,
Grosvenor-street, Dec. 30th, 1878. FRED. R. FISHER.

A MEDICAL SUPERINTENDENT OFFICER OF HEALTH FOR DUBLIN.

ON Monday last the Corporation of Dublin, after a protracted discussion, referred back to the Public Health Committee for reconsideration their proposal for an amalgamation of the offices of superintendent medical officer and medical officer of health, with a recommendation from the Council for the Committee to devise some scheme by which the services of a highly qualified medical man should be secured for the office of medical superintendent, whose whole time shall be devoted to the duties of the office.

An Old Practitioner might with advantage address his suggestions to the firm indicated.

Mr. Martin, (Kemerton.)—See answer to "Respirator" in this week's issue.

THE NAVAL MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—Considering the unsatisfactory and discontented state at which the Naval Medical Service has arrived, as is evidenced by the gradually decreasing number of candidates, and the constant applications from officers for permission to retire from the service or to resign their commissions, would it not be a wise act if the Admiralty, following the example of the Secretary of State for War, caused a circular to be sent to the medical officers, asking for their views, with the object of re-organising the department, and restoring it to a state of efficiency and contentment?

Yours &c.,
January, 1879. A NAVAL MEDICAL OFFICER.

*** The *alleged* causes of the unpopularity of the Naval Medical Service are fully set forth in numerous letters that have been published from time to time, and which may be found in the columns of THE LANCET week after week almost uninterruptedly for the last two years. We have endeavoured to combat the objections raised again and again, and, as it now appears, with some prospect of success. Time and the results of the next examinations will prove. Does our correspondent wish that the post of Director-General should be held by a civilian? The question is most important, and might be discussed with advantage by both senior and junior officers in the service.—ED. L.

Mr. Hutchinson, M.R.C.S., &c.—We do not propose in any way to recognise the practice of dentistry except as an integral part of surgery. The reports of individual surgeons practising in this branch of our art, or of Societies in which the possession of a full medical or surgical qualification is the essential condition of membership, will be acceptable; but we cannot in future print communications from other sources.

Dr. Arthur W. Fox.—The paper is marked for insertion.

DR. PROSSER JAMES'S WORK ON "SORE-THROAT."

To the Editor of THE LANCET.

SIR,—In a review of my work on Sore-throat, in your impression of last week, the writer employs, perhaps inadvertently, the phrase "so-called hand-coloured plates." As the term "so-called" may mislead some readers who have not seen the book, you will, no doubt, allow me to state that, in every copy issued, every particle of colour in all the twelve figures is laid on by hand alone. This involves no little trouble, compelling me to examine every plate separately before entrusting it to the binder. Moreover, the plan is so costly that, should the book obtain the success you are good enough to "wish and predict," it may be necessary to increase the price at which it is published.

I should not dream of troubling you with this statement if all your readers could see the plates, as the humblest follower of Thomas Girton would at once recognise the mode of their production. As to their fidelity to nature, it is the province of the critic, not the author, to speak.

Yours obediently,
Dean-street, Park-lane, Jan. 21st, 1879. PROSSER JAMES.

OFFICIAL CHEMISTRY, BOMBAY.

THE work of the Government chemical analysers in India has much interest attaching to it. This is instructively shown by the Report of the Chemical Analyser to the Bombay Government, Surgeon-Major Lyon, F.C.S., for the past year. A brief summary of the nature of his duties for that period will indicate how important are the functions he exercises. The analyses he was called upon to make related to 477 medico-legal cases, 96 potable waters, 203 Government stores, and 36 are classed as miscellaneous. The chief interest of the report to the reader rests with the analyses performed in the first two classes of cases, and the incidental light gained of certain social habits of the natives. The 477 medico-legal cases involved 1181 analyses, 47 relating to blood-stains, 207 to cattle poisoning, real or alleged, and 223 to real or suspected poisoning of human beings. Of the last-named analyses, poison was detected in 127 cases. The list of poisons detected shows how wide a range is made use of for criminal purposes. First in the list stands arsenic (71 instances), next comes opium (28 instances), and then follow, in order of succession as to frequency of use, datura, powdered glass, lead, mercury, copper, zinc, iron, &c., hydrocyanic acid, alcohol, aconite, oleander, cryptostegia grandiflora.

Mr. H. C. Hopkins should ask for the Rules and Reports of a few of the best provident dispensaries, such as that of Northampton, Leicester, Camberwell, Haverstock-hill, &c.

Spectator.—It is always regrettable to find a medical man accepting an insufficient remuneration for professional work.

Dr. J. B. Gill.—Yes.

Mr. Playfair.—The qualifications required for any post should certainly be clearly expressed in the advertisement announcing the vacancy.

A MONSTER.

To the Editor of THE LANCET.

SIR,—On the 20th of last month I was sent for to attend a woman in her third confinement. On entering the house the nurse informed me that it was a "bad case," also that it was a case of twins, for she saw the four feet! Having made an examination, I found her statements were correct. I also found the woman completely worn out, having been in labour for several hours. I easily paired the feet, and returned one set into the vagina, giving the woman at the same time a full dose of brandy and ergot to restore the pains, which were now becoming weak. At the next expulsive pain I made traction by the two feet, endeavouring at the same time to prevent the other feet from coming down. This I found impracticable; for each time I used any force they would also come. I then altered my tactics, and, having seized the four legs by the ankles, made extension. On arriving at the buttocks I had to use much force. At this moment the funis appeared, which I found pulseless; and on passing my fingers up between the bellies of the two children along the cord, I then found for the first time that I had a monster to deal with, and that the bodies were united at the umbilicus. From that up they were closely blended together, sternum to sternum. Not without some difficulty I freed the shoulders and arms; but the heads, which were fused into one, with only one face, was the chief impediment, the occipital protuberances being opposite each other. The left ear of the one and the right of the other in front were separated by the face; behind they were in close proximity.

Hoping that I have been sufficiently explanatory, and having already trespassed largely upon your valuable space, I must refrain from further comment, only adding that I have preserved the monstrosity (if such, so symmetrical a specimen may be called) in spirit, and will be pleased to show the same to any member of the profession, or to answer any questions relative to the matter. The child or children are females, and had arrived at their full time.

I remain, Sir, yours faithfully,
HUGH G. WEBB, L.K.Q.C.P.I., &c.

Northleach, Gloucestershire, Dec. 13th, 1878.

An Inquirer.—It is impossible to say when the next opportunity for entering the Army Medical Department will occur, as it depends upon Colonel Stanley making up his mind with regard to the changes required to render the service acceptable to the junior members of the profession. Of this he has as yet given no indication. Our correspondent will find our opinion as to the probable future arrangements of the service in our issue of January 4th; but nothing certain is yet known on the subject.

Dr. Woodhouse.—The forms issued to Poor-law medical officers for the order or recommendation of food are not provided for "the information of the patient," but of the guardians; and by placing such a form in the hands of the medical officers, to be used at their discretion only, and not in every case, the Board recognises the need of the medical officer's judgment, and, in point of fact, asks his advice. Hence the responsibility is not so easily shouldered off upon relieving officers as may appear.

Mr. Marlow.—We do not prescribe. Any qualified practitioner will advise in the matter.

Mr. Chas. W. Oddie.—A reference to our advertisement columns will afford the information desired.

An Assistant.—The subject should be studied in one of the standard works on Surgery, or in the wards of a hospital.

THE RECOVERY OF FEES FROM THE CORONER.

A COPY of the *West Kent Times* has been forwarded to us, which contains a letter from Mr. Charles Chittenden, L.R.C.P., &c., detailing facts which are worthy the attention of our readers. It is stated that Mr. Chittenden made a post-mortem, and gave a report thereon to the coroner, in a case in which no inquest was held; that Mr. Chittenden experienced some difficulty in obtaining the fees (*two guineas*); but on his suing the coroner, the sum was at once paid into Court, and the matter dropped. It is not a usual course for a coroner to order a post-mortem except in cases where an inquest is considered necessary, and it is not common for an inquest, when once decided on, to be set aside. We should like to see a full report of the proceedings in Court.

PUERPERAL CONVULSIONS.

To the Editor of THE LANCET.

SIR,—I send you notes of the following case as illustrating the views of Mr. H. B. Vincent in your Journal of Jan. 4th, in reference to the treatment of puerperal convulsions by as rapid a delivery as is possible compatible with safety to the mother and child.

M. R——, aged twenty-six, wife of a mechanic engaged in an iron foundry, in labour with her fourth child. Her husband was awakened at 3 o'clock on the morning of Oct. 11th, 1874, by the loud breathing of his wife, and, finding he could not rouse her, he came hurriedly to my house. On my arrival at 3.30 A.M., I found the patient suffering from violent convulsions, recurring every five or six minutes, and terminating after every fit in profound coma. On vaginal examination (made between the convulsive seizures), I found the os soft and dilated so as to admit of the introduction of three fingers, the head of the child presenting high above the brim of the pelvis. The pains only slight. As the convulsions returned more quickly, and her face became very livid, with profound coma after every attack, I determined to deliver as quickly as possible; and, as the pelvic cavity was large, I succeeded after a little difficulty in getting my left hand through the dilating os during the state of coma, and pushing the head of the child back. I fortunately succeeded in rupturing the membranes, and, seizing hold of the feet, turned the child, and delivered the woman in about an hour after reaching the house, the patient being quite unconscious during the whole progress of the labour. The child, a female, apparently dead, soon began to breathe, and is living at the present time. MRS. R—— continued to have convulsions until the evening of the same day, but eventually recovered after an attack of phlebitis in both legs, preventing her getting about for six or eight weeks.

She has lately been confined with her fifth child, the labour natural, and ending in perfect recovery.

I think the propriety of the rule, in puerperal convulsions, to deliver as quickly as possible compatible with the safety of the mother, is well shown by this case, and it was no doubt owing to the large pelvis and a dilated and softened os uteri I was enabled to turn and deliver quickly, with successful results to both mother and child. No doubt forceps might have been applied; but I had not got them with me, never expecting to find so serious a complication of labour as puerperal convulsions when summoned to the case. It is rather singular that, after a practice of thirteen years, and including about 1500 labours, this is the only case of puerperal convulsions that has occurred in my own practice.

Yours truly,
Barnsley, Jan. 14th, 1879. W. J. LANCASTER, M.R.C.S.E.

To the Editor of THE LANCET.

SIR,—I think the following case will be interesting in connexion with the one detailed by Mr. Vincent in your issue of the 4th inst.

I was sent for on Nov. 19th, 1876, at 4 A.M., to see a young married woman, apparently healthy, about five months advanced in pregnancy for the first time. On arriving I found her having violent repeated convulsions, with profound coma intervening. The os showed no signs of labour. I administered chloroform as soon as I could get it, and kept the patient under it, thereby completely checking the convulsions, which, however, returned almost immediately on removing the chloroform. At six o'clock, the patient being in a good sleep, I left, with directions to attendants how to administer the chloroform if the convulsions recurred, and to send for me. I saw her continually through the day, administering chloroform nearly the whole day, as the convulsions kept recurring. At 9 P.M. I sought the assistance of one of my partners as to the advisability of procuring abortion. We agreed to continue the chloroform for the present, and to give a drop of croton oil on a lump of sugar, powdered, as she had not been able to swallow since the commencement of the attack. About midnight, the patient being in a deep sleep, the chloroform was removed; and at 2 A.M., the sleep continuing, I left, after which no further convulsion occurred. On my morning visit I found her awake, after a prolonged sleep, the bowels having acted well. The first urine collected was highly albuminous, but became normal by the 25th of November. She aborted of a still-born child (apparently six months) on December 24th, and recovered perfectly, having taken bromide of potassium up to that time. Surely this treatment was better than performing that dangerous operation, procuring abortion, in this particular case at least.

I am, Sir, yours &c.,
January, 1879. A NEW CONTRIBUTOR.

To the Editor of THE LANCET.

SIR,—I should be much obliged if any of your numerous readers would inform me, through your journal, what recent works or papers there are on Puerperal Convulsions, and where they may be obtained.

I am, Sir, yours respectfully,
January, 1879. LUX.

HEALTH OF THE GERMAN NAVY.

From the *Army and Navy Gazette* we learn that the strength of the German navy last year consisted of 2916 men, of whom 1118 were usually afloat, and 1798 ashore. A total of 52 cases died—viz., 13 afloat and 39 ashore, 44 of these being from disease, and 6 by accident, whereas 2 committed suicide. Phthisis was in the great majority of cases assigned to be the cause of death.

EMETICS FOR SEA-SICKNESS.

To the Editor of THE LANCET.

SIR,—Have any of your contributors suggested emetics for sea-sickness?

I have lately had under my care several very severe cases of malarial fever. A very severe, I might almost say virulent, type has prevailed in the Punjab this year, attended with nausea, great irritability of stomach, and frequently most severe bilious vomiting, with headache and tendency to collapse. In such cases ipecacuanha emetics have, in my hands, proved most efficacious, not alone in allaying the irritable stomach, but in relieving headache, producing diaphoresis, and thus cutting short the attack; producing, secondarily, decidedly sedative effects.

The symptoms of sea-sickness closely resemble those above described; the feelings are quite similar. Might not emetics prove useful in such cases?

Yours &c.,

F. C. MARKEY, Surgeon-Major, A.M.D.

B.H.A. Camp, Moolian, Nov. 24th, 1878.

ERRATUM IN THE MEDICAL DIRECTORY.

To the Editor of THE LANCET.

SIR,—May I trespass on your space briefly to allude to an erratum in the Medical Directory for this year—viz., that in stating my qualifications the "M.R.C.P. Lond." has been accidentally omitted by the publishers.

Trusting that you will allow me thus to correct what might otherwise be detrimental to my practice as a physician,

I am, Sir, your obedient servant,

T. WEMYSS BOGG, M.B. Lond.

St. Leonards-on-Sea, Jan. 15th, 1879.

ERRATUM.—In the eighth line from end of Mr. G. B. Morgan's paper, page 79 of our last impression, for "pointed," read *jointed*.

COMMUNICATIONS not noticed in the current number shall receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Moxon, London; Dr. Mahomed, London; Dr. John Williams, London; Dr. Cobbold, London; Mr. R. B. Carter, London; Mr. Teevan, London; Dr. Reid, Rothwell; Dr. Hunt, Wolverhampton; Major Duncan, London; Dr. Dearden, Church; Mr. Blackett, London; Mr. Barwell, London; Mr. Hoecker, Newcastle; Mr. Ross, London; Mr. Lackenby, Stockton-on-Tees; Mr. Sugden, Dundee; Mr. Jones, West Bromwich; Dr. Carey, Gloucester; Dr. Macewen, Glasgow; Mr. Hopkins, Bath; Dr. Rigler, Berlin; Mr. Chittenden, London; Messrs. Allen and Son, London; Mr. Ryley, Leytonstone; Dr. Spender, Bath; Dr. McLean, London; Dr. Downes, Tiverton; Dr. McCall Anderson, Glasgow; Mr. Bartlett, Bristol; Dr. Orton, Crouch-end; Dr. Bogg, St. Leonards; Mr. Taylor, Appleby; Mr. Webb, Northleach; Mr. Oxley, Rotherham; Mr. Leech, Woolpit; Mr. Murrell, London; Mr. Dering, London; Mr. Mason, Sudbury; Mr. Clarkson, Morpeth; Dr. Jones, Cork; Mr. Blease, Altrincham; Dr. Williams, Cannes; Mr. Parsons, Goole; Dr. Mapother, Dublin; Dr. Low; Dr. Kinkead, Galway; Mr. King; Dr. Roberts; Dr. Playfair, Edinburgh; Mr. Hodgkin; Mr. Hopgood, Sunderland; Mr. Bate; Dr. Geddings, Charleston, U.S.A.; Dr. Balston, Maidstone; Mr. Holland; Dr. Cameron, Nice; Mr. Horton; Dr. Liebrecht, Liège; Mr. Hinchcliffe; Mr. T. Cooke; Mr. Fosbroke, Birmingham; Mr. Roe, Ellesmere; Mr. Ford, Poplar; Mr. H. Marsh, London; Messrs. Sutton and Co., Preston; Mr. G. Fleming, London; Mr. Istance, Ries; Dr. Prosser James, London; Mr. Cooper, Macclesfield; Mr. Oddie; Dr. MacCalman; Dr. Woodhouse; Dr. Gibbons; Mr. Moore, Birmingham; Mr. Hutchinson; Dr. Carpenter; Dr. Jones, Brecon; Mr. Barrett; Dr. White, Washington, U.S.A.; Mr. Brailey; Mr. Shepherd; A Committee Man; An Assistant; Lux; Alpha; An Inquirer; A Naval Medical Officer; Medicus; Practitioner; A. Z.; Inquirens; Inquiring Mind; Spectator; House-Surgeon; M.R.C.S.; A Subscriber; &c. &c.

LETTERS, each with enclosure, are also acknowledged from—Mr. White, Newington; Mr. Davison, Scotswood; Dr. Stephenson, Bradninch; Messrs. Robinson and Knight, Rotherham; Dr. Ross, Belper; Dr. Cooke, Rose; Mr. Hyslop, Church Stretton; Mr. Pritchard; Mr. Jones, Manchester; Mr. Walter; Mr. White, Shetland; Mr. Anderson; Mr. Hoare; Mr. Talbot; Mr. Forward; Mr. Hyde; Mr. Walker, Aldborough; Mr. Stedman; M., Felling-on-Tyne; Doctor; Apothecary; H. R. N.; R. A.; A. R., Hornsastle; H. R., Leeds; Medicus, Bradford; A., Stourport; M.B., F.R.C.S.; M.D.; Sigma; M.D., Clare; Medicus, Birmingham; A. B., Holloway; Medicus, Wokingham; S. L. H.; J. T.; A. B.; C. T. A., Aldgate; F., Forest-hill; J. B.

Leeds Mercury, Church of England Temperance Chronicle, Weekly Irish Times, Manchester Courier, Oxford Times, Daily News, Leicester Advertiser, Cambrian, Pall Mall Gazette, Leeds Daily News, Portsmouth Times, St. Pancras Gazette, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Jan. 23rd, 1879.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb	Dry Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 17	30·24	S.E.	34	34	..	37	30	..	Foggy
,, 18	29·90	S.E.	36	45	..	50	32	0·00	Snowing
,, 19	30·24	E.	34	38	..	38	32	0·50	Cloudy
,, 20	30·30	S.E.	..	40	..	42	28	..	Overcast
,, 21	30·05	E.	..	29	..	33	25	..	Overcast
,, 22	30·01	E.	..	30	..	34	27	..	Overcast
,, 23	29·92	E.	..	29	..	..	23	..	Overcast

Medical Diary for the ensuing Week.

Monday, Jan. 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8½ P.M. Dr. R. J. Lee, "On the recent Improvements in the Steam Draft Inhaler." — Dr. Sansom, "On Heart Disease in Children."

Tuesday, Jan. 28.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION. — 3 P.M. Professor E. A. Schäfer, "On Animal Development."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY. — 8½ P.M. Dr. Gowers: "A Study of the so-called Tendon-reflex Phenomena."

Wednesday, Jan. 29.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

Thursday, Jan. 30.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION. — 3 P.M. Mr. J. H. Gordon, "On Electric Induction."

Friday, Jan. 31.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—9 P.M. Mr. H. Heathcote Statham, "On the Logic of Architectural Design."

Saturday, Feb. 1.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION. — 3 P.M. Professor H. G. Seeley, "On Reptilian Life."

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